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ABSTRACT

About 200 representatives of business, industry, labor, government, education, and community interests from across the nation participated in the conference which was planned to provide for further development of understandings, abilities, skills and appreciations of those persons responsible for comprehensive programs of vocational-technical education. The report includes a chart which outlines the provisions of Public Law 90-576 relating to cooperative vocational education, abstracts of major papers, recommendations regarding clarification of state plan requirements under Part G of Section 173 of the 1968 amendments, and recommendations for planning and operating cooperative programs. Major papers presented by the consultants include: (1) Congressional Expectations of Cooperative Vocational Education, (2) The Silent Field and the Dark Sun, (3) The Employer's Role in Cooperative Occupational Education, (4) The School's Role in Cooperative Occupational Education, (5) The Community Role in Cooperative Vocational Education, (6) A Comparative Study of Two Concurrent Work-Education Models in Agriculture, and (7) an abstract of "Interpretive Study of Cooperative Efforts of Private Industry and the Schools to Provide Job-Oriented Education Programs for the Disadvantaged." (JK)

ED034888

NOTES AND WORKING PAPERS

THE NATIONAL CONFERENCE
ON
COOPERATIVE VOCATIONAL EDUCATION

IMPLICATIONS OF THE 1968 AMENDMENTS

Conducted by the
University of Minnesota
Under Contract With the
United States Office of Education
February 26-28, 1969
Minneapolis, Minnesota

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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CONFERENCE OBJECTIVES

To provide for further development of understandings, abilities, skills and appreciations appropriate for persons having responsibilities for comprehensive programs of vocational-technical education. The specific program objectives are:

1. To develop understanding of new authorization for local and state school systems and the Office of Education, H.E.W., as they relate to cooperative vocational-technical education programs.
2. To develop increased leadership capabilities and understanding of responsibility for cooperative education programs.
3. To develop an understanding of resource materials, information and personnel available for program development in cooperative vocational-technical areas.
4. To develop an understanding of the critical areas of need for cooperative programs of vocational-technical education, together with extended awareness of desirable program developments to meet those needs.
5. To extend knowledge of techniques essential for effective coordination with governmental agencies, at all levels, involved in or responsible for cooperative vocational-technical education programs.

PROJECT STAFF

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PARTICIPANTS

1. Representatives from State Advisory Councils on Vocational Education.
2. Representatives from Vocational Education (state, local, teacher-educators, etc., in all occupational areas).
3. School Superintendents and Principals in Urban and Rural areas.
4. Representatives from Business and Industry.
5. Representatives from Labor.
6. Representatives from Private Schools.
7. Representatives from Professional and Trade Associations.
8. Representatives from Civic and Community Organizations.
9. Representatives from Guidance Personnel.

TASK FORCE LEADERS

J. Dudley Dawson

J. Dudley Dawson is currently a consultant with the National Commission for Cooperative Education. He received his M.A. at Ohio State University. He was associated with Antioch College, Yellow Springs, Ohio, for 43 years. He was director of the cooperative program for 16 years. In 1953, he became Vice-President and Dean of Students and served in this capacity until his retirement in June, 1967. In 1968, he received the Dean Herman Schneider Award from the National Cooperative Education Association. Mr. Dawson has authored a number of papers on the field of cooperative education. He is a consultant to Sinclair Community College in Dayton, Ohio, and also to Hillsborough Community College, Tampa, Florida.

Eugene L. Dorr

Eugene L. Dorr is currently Assistant State Director of Vocational Education for the State of Arizona. He received a B.A. degree from Westmar College, LeMars, Iowa, and an M.B.A. from the University of Denver. He has done graduate work at Iowa State University and the State University of Iowa in Vocational Education. Mr. Dorr taught Business Education and Distributive Education for a number of years. He was State Supervisor of Office and Distributive Education for the State of Arizona before assuming his present position. He has authored numerous articles relating to Office and Distributive Education in several vocational education journals.

Vern C. Gillmore

Vern C. Gillmore is currently the Director of Educational Services for the Mountain View-Los Altos Union High School District. He is currently serving as President of the California Association of Work Experience Educators. Mr. Gillmore received his B.A. degree from San Jose State and his M.A. from Stanford University. He has been Consultant in Work Experience for the State of California.

John D. Lee

John D. Lee is currently State Supervisor of Business and Office Education for the State of Indiana. Mr. Lee received all degrees from Indiana University, Bloomington, Indiana. Mr. Lee was teacher-coordinator of Office Education for four years. He recently was appointed to the National Advisory Committee of the American Vocational Association and is a member of the "Committee of Nine" of State Supervisors for coordinating Business and Office Education in the United States. He has published several articles concerning realistic training programs for high school students in office education and has written a handbook for establishing and organizing cooperative office programs.

Duane R. Lund

Duane R. Lund is currently Superintendent of Schools in Staples, Minnesota. He received his B.A. from Macalaster College, St. Paul, Minnesota, and received his M.A. and Ph. D. from the University of Minnesota. Dr. Lund was Instructor and Assistant Director of the Guidance Institute at the University of Minnesota. He was a teacher and counselor for eight years. He was principal of the high school until he assumed his present position in 1960. He has been Vocational Education Consultant for the Washington, D.C. schools of the U.S. House of Representatives, 1965-1967. Dr. Lund is a Member of the Advisory Committee to the State Department of Education for all Federal Programs; Vice-President of the Minnesota Vocational Association of Vocational Schools, and was a member of a study team of education in Western Europe in 1965.

Jerome Moss

Jerome Moss currently is Professor of Industrial Education and Co-Director of the Minnesota Research Coordination Unit in Occupational Education at the University of Minnesota. As a research specialist in vocational education he has directed a number of studies concerned with occupational training programs. He received his B.S. degree from Carnegie Institute of Technology in Printing Engineering, his M.A. degree from Columbia, and Ph. D. from the University of Illinois. Dr. Moss is Vice-President of the American Vocational Education Research Association and a consultant to the Center for Research in Vocational Education at Ohio State University.

Charles F. Nichols

Mr. Charles F. Nichols, Sr. is currently principal of the Minneapolis Work Opportunity Center. He received his M.A. degree in Industrial Education at the University of Minnesota and is working toward a Doctor of Education degree at Colorado State College. He holds certificates for Administration and Counseling and Guidance from the University of Minnesota. Mr. Nichols spent twelve years teaching and counseling in the Minneapolis school system. He is on the Charter Commission, Human Relations Commission, Northside Youth Development Council, Minneapolis, and the North Suburban Human Relations Commission. He is a member of the National Advisory Council on Vocational Education.

Gordon I. Swanson

Gordon I. Swanson is currently Professor of Agricultural Education and Professor and Coordinator of International Programs at the University of Minnesota. He received a B.S. degree, a M.A. degree, and a Ph. D. degree from the University of Minnesota. Dr. Swanson has been with the University since 1949. He is chairman of the Curriculum Committee for the College of Education. Dr. Swanson has served as consultant on numerous committees for Agricultural Education with UNESCO, and as consultant for the U.S. Office of Education. He has served as chairman of the American Vocational Association Committee on International Education and is a member of the Advisory Board for the Work Opportunity Center for the Minneapolis Public Schools. He has published many articles relating to vocational education.

Elizabeth Simpson

Betty Simpson is currently Professor, Department of Vocational Technical Education and Bureau of Educational Research at the University of Illinois. Miss Simpson received a B.S. degree from Indiana State University, Terra Haute, Indiana, a M.S. degree from Iowa State University, Ames, and an Ed. D. degree from the University of Illinois, Urbana, Illinois. She has served as chairman of the Division of Home Economics at the University of Illinois and has taught at Purdue University, Indiana State, and Winthrop College, Rock Hill, South Carolina. Miss Simpson served as President of the American Vocational Association. She has been editor for the department of Home Economics for the National Education Association. Recently she served as Vocational Education Consultant to the Sub-Committee on Education in the House of Representatives.

Emma B. Whiteford

Emma B. Whiteford is currently Professor and Chairman of the Department of Home Economics Education at the University of Minnesota. Dr. Whiteford received a B.S. degree from North Dakota State University, Fargo, North Dakota, a M.S. degree and an Ed. D. both from the University of Illinois, Urbana, Illinois. She has served as Visiting Chairman and Research Associate, Division of Home Economics, University of Illinois; Professor and Director, School of Home Economics, University of Cincinnati and Professor and Head, Department of Home Economics Florida State University. She has also taught at Bowling Green State University and the University of Illinois. Dr. Whiteford has authored numerous publications and is a member of many organizations related to the field of Home Economics. In 1967-68 she was listed in "Who's Who in Education."

Alternate:

Mr. Ronald Strand, State Supervisor of Distributive Education, Minnesota.

CONFERENCE PROGRAM

TUESDAY, FEBRUARY 25

Dr. Emma Whiteford, Chairman

7:00-9:00 p.m. Registration and Informal Reception - Mezzanine

WEDNESDAY, FEBRUARY 26

Professor Warren G. Meyer, Chairman

8:00 a.m. Registration - Mezzanine

9:00 a.m. Opening Session - Walnut Room

Speakers: Malcolm Moos, President of the University of Minnesota.

Edwin L. Nelson, Senior Program Officer, Work Experience Education Programs, U.S. Office of Education.

9:30 a.m. "Congressional Expectations of Cooperative Vocational Education" - Walnut Room

Speaker: Honorable Roman C. Pucinski, Congressional Representative from the State of Illinois

Roman C. Pucinski is currently the representative for the 11th congressional district in the state of Illinois. Mr. Pucinski attended Northwestern University and John Marshall Law School in Chicago. Mr. Pucinski has been a member of Congress since 1959, during which time he has authored bills such as: Federal Aid to Education Act, College Loan Program, Medicare, Vocational Education Act Amendments of 1968, and many others.

Introduction by: Robert Van Tries, Assistant Commissioner for Vocational Education, Minnesota State Department of Education.

Panel: Clarification of State Plan Requirements Under Part G, Section 173 - 1968 Amendments.

"Use of Funds and Cooperating Agencies"
Howard Rosenwinkel, Director of Anoka, Minnesota Area Vocational School.

"Reimbursement of Employers"
Eugene Dorr, Assistant State Director of Vocational Education, Arizona

"Ancillary Services"
Gordon Swanson, Professor of Agriculture Education, University of Minnesota

WEDNESDAY, FEBRUARY 26 (Con.)

"Priority Funding"

Jerome Moss, Professor of Industrial Arts Education, University of Minnesota.

"Private Schools and Accounting Considerations"

Robert Van Tries, Assistant Commissioner for Vocational Education, Minnesota.

"General Clarification"

Sherrill McMillen, Deputy Director, Division of Vocational & Technical Education, U.S. Office of Education.

10:45 a.m. Break - (Coffee service available on the Mezzanine)

11:15 a.m. Task Force Group Meetings - Mezzanine Rooms

12:30 p.m. Lunch - Lakeland Room (Main Floor)

1:45 p.m. "Potential Contributions of Cooperative Education to the Student's Vocational Development"

Speaker: Dr. Henry Borow, Professor of Psychological Studies and Counselors Education, University of Minnesota.

Dr. Henry Borow is currently holding the position of Professor of Psychological Studies at the University of Minnesota. Dr. Borow received his Ph.D. in psychology from Pennsylvania State University, and has done an extensive amount of work through a number of research grants. Dr. Borow has published over seventy articles, books, book chapters, and tests in the fields of psychology and counseling. Dr. Borow currently is a member of the American Personnel and Guidance Association, National Vocational Guidance Association, Phi Beta Kappa, and numerous other professional associations.

Panel: Meeting student Needs

"Students' Expectations"

Ann Ewalt, Cooperative Student Trainee and Central Region Vice-President of Distributive Education Clubs of America.

"Recommendations to Employers Concerning Vocational Development"

E. Edward Harris, Professor of Distributive Education Northern Illinois University, Dekalb, Illinois.

"Coordinator Competencies"

Clifford Helling, Vocational Director, Robbinsdale, Minnesota Schools.

"School Adapting to Student Needs"

William Knaak, Assistant Superintendent, White Bear Lake, Minnesota Public Schools.

"Role of Guidance in Meeting Student Needs"

Lorraine Hansen, Associate Professor of Counselor Education at the University of Minnesota.

WEDNESDAY FEBRUARY 26, (Con.)

3:00 p.m. Break - Mezzanine
3:30 p.m. Task Force Group Meetings - Mezzanine Rooms
5:00 p.m. Break
6:00 p.m. Banquet - Lakeland Room

Program: Film - "Tell It Like it Is," produced by Sears Roebuck Foundation and the American Vocational Assn.

Panel: Chairman, Ronald Strand, Minnesota State Supervisor of Distributive Education.

Student Panel Members:

Linda Jones, President, National Office Education Clubs of America.

Mike Schaefer, State President, Vocational Industrial Clubs of America.

Ann Ewalt, Central Region Vice President of DECA

David Mager, President, LeCenter Future Farmers of America, LeCenter, Minnesota.

Jan Haley, Former Student, Work Opportunity Center, Minneapolis, Minnesota.

Gary Johnson, President, Minnesota Post-Secondary DECA.

Sue Erickson, Future Homemakers of America member, student, Home Economics Food Service Program, Lakeville, Minnesota.

8:00 p.m. Meeting of Task Force Leaders

THURSDAY, FEBRUARY 27

Dr. Richard Ashmun, Chairman

9:00 a.m. Research Report - Dr. Trudy Banta - Walnut Room
"Interpretive Study of Cooperative Efforts of Private Industry & the School to Provide Job-Oriented Education to Disadvantaged"
9:30 a.m. "Labor's Role in Cooperative Occupational Education"
Speaker: John A. Sessions, Public Education Specialist AFL-CIO, Washington, D.C.

Dr. John Sessions is currently Staff Representative of the AFL-CIO Department of Education. He received his A.B. and M.A. degrees from the University of Michigan and received his Ph.D. from Cornell University. He has written numerous publications, among them "Labor, Champion of Public Education." He is Consultant on Problems of Young Workers to the International Labor Office and lecturer and consultant on Worker's Education in Norway, Sweden, Denmark, France and Indonesia.

THURSDAY, FEBRUARY 27 (Con.)

9:30 a.m.

Panel: Cooperative Arrangements with Labor

"Labor Representative's Point-of-View" John Peterson, Education Director, AFL-CIO, Minnesota.

"Coordinator's Approach to Labor Groups" Peter Voeller, Director, Community Relations Department, Retail Clerks International, Washington, D.C.

"A Coordinator's Recommendations" Ron Olson, Coordinator of Cooperative Trades Program, Hopkins, Minnesota Senior High School.

"Apprenticeship and Cooperative Education" Ralph Dallman, Minnesota State Supervisor, Bureau of Apprenticeship, U.S. Department of Labor.

"Wage and Hour Laws and Cooperative Education" Gerald J. Mitchell, Regional Director, Wage and Hours and Public Contracts Division of Department of Labor, Chicago.

10:45 a.m.

Break - Mezzanine

11:15 a.m.

Task Force Group Meetings - Mezzanine Rooms

12:30 p.m.

Lunch - Lakeland Room

1:45 p.m.

"The Employer's Role in Cooperative Occupational Education" - Walnut Room

Speaker: Mr. Robert Guelich, Vice-President of Public Relations, Montgomery Ward, Inc., Chicago, Illinois.

Mr. Robert Guelich is currently a divisional Vice-president with Montgomery Ward, serving as director of public relations. Mr. Guelich is a graduate of Ohio Wesleyan University, and holds a M.B.A. degree from Harvard. Mr. Guelich was chairman of the National Advisory Board of Distributive Education Clubs of America in 1967, and serves on national committees of Boy Scouts of America, 4-H Clubs of America, and Public Relations Society of America. Mr. Guelich is currently president of the Board of Education of New Trier Township Schools in Kenilworth, Illinois.

Panel: Cooperative Arrangements with Employers

"Training Agreements" David Thompson, State Supervisor of Distributive Education, Texas.

"Employer Arrangements" Helen Jameson, Director of Nursing, Mt. Sinai Hospital, Minneapolis.

"Advisory Committees" Charles Sheehan, Personnel Director, Young-Quinlan Rothschild's and Education Chairman, Downtown Council, Minneapolis.

THURSDAY, FEBRUARY 27 (Con.)

1:45 p.m. "Evaluation of Training" T. Carl Brown, State Supervisor of Distributive Education, N. Carolina

"Employer Benefits" Trudy Banta, Research Associate University of Tennessee, Knoxville.

3:00 p.m. Break - Mezzanine

3:30 p.m. Task Force Group Meetings - Mezzanine Rooms

5:00 p.m. Adjourn

FRIDAY, FEBRUARY 28

Dr. Mary Klaurens, Chairman

9:00 a.m. Research Report - Dr. Frank Bobbitt - Walnut Room

"Comparative Study of Two Concurrent Work Education Models"

9:30 a.m. "The School's Role in Cooperative Occupational Education" - Walnut Room

Speaker: H. I. Willett, Superintendent of Richmond, Virginia Schools.

H. I. Willett is currently Superintendent of the city of Richmond, Virginia schools, a position he has held for 23 years. Mr. Willett received his B.A. degree from William and Mary College, and a M.A. degree from Columbia University. He has received several honorary degrees. Mr. Willett served as president of the American Assn. of School Administrators, has been a member of the Advisory Board of Fisher Body Guild and Advisory-Board of "Scholastic Magazine."

Panel: Supervision and Coordination by the School
"Reaching All Youth through Cooperative Education"
Norman Eisen, Director of Education, Whittier, California Unified High School District.

"In-School Instruction" Kenneth Rowe, Teacher-Educator of D.E., Arizona State University, Tempe.

"Organization of Programs in Inner City Schools" Ann Lind, City Supervisor of Distributive Education, Detroit Public Schools.

"Organization of Programs in Rural Communities" C. W. Dalbey, Chief of Agricultural Education, Iowa State Department of Public Instruction.

"Supervision of Programs in Metropolitan Centers" Chet Sheaffer, Coordinator of Cooperative Education Tucson, Arizona Public Schools.

10:45 a.m. Break - Mezzanine

FRIDAY, FEBRUARY 28 (Con.)

11:15 a.m. Task Force Group Meetings - Mezzanine Rooms
12:30 p.m. Lunch - Lakeland Room
1:45 p.m. "The Community's Role in Cooperative Vocational Education"
Walnut Room

Speaker: Marvin J. Feldman, Program Officer, Ford Foundation and National Advisory Council Member.

Mr. Marvin J. Feldman is currently the Program Officer for the Ford Foundation. Mr. Feldman attended West Point U.S. Military Academy, and holds an A.B. degree in Mathematics from San Francisco State College. Mr. Feldman is currently a member of the National Advisory Committee on Vocational Education, and the planning Coordination Committee for the Education Professions Development Act. Mr. Feldman has authored numerous publications on education and was nominated one of the Ten Outstanding Young Men of 1962 by the U.S. Chamber of Commerce.

Panel: Community Relationships

"Community Concerns Related to Cooperative Education"
John Doyle, Education Director, Minneapolis Urban League, Minneapolis, Minnesota.

"Private School Relationships" Leonard Urbaniak, Coordinator of Governmental Programs, Archdiocese of St. Paul and Minneapolis.

"Relationships with Community Agencies and Projects"
Margaret Andrews, Consultant for Business Education
and Placement, Minneapolis Public Schools.

"Relationships with the Employment Service"
Gary Denault, Youth Services Supervisor, Minnesota
Department of Employment Security.

"Relationship of Job Corps to Cooperative Education"
Joseph R. Corcoran, Center Director, Keystone Job
Corps Center for Women, Drums, Pennsylvania.

3:00 p.m. Break - Mezzanine
3:30 p.m. Task Force Group Meetings - Mezzanine
4:30 p.m. Adjourn

DEFINITION

"Cooperative vocational education program" means a cooperative work-study program of vocational education for persons who, through a cooperative arrangement between the school and employers, receive instruction, including required academic courses and related vocational instruction by the alternation of study in school with a job in any occupational field, but these two experiences must be planned and supervised by the school and employers so that each contributes to the student's education and to his employability. Work periods and school attendance may be on alternate half-days, full-days, weeks, or other periods of time in fulfilling the cooperative vocational education work-study program.

P-L. 90-576 PROVISIONS RELATING TO WORK AND EDUCATION

Cooperative Vocational Education

Part B

State Vocational Education Programs

1. Money appropriated under Part B may be expended for cooperative education programs.
2. Purpose - To prepare students for employment in an occupational field.
3. Students served - Individuals who desire and need such education and training in all communities of the State.
4. Uses of Funds - For the purposes specified in Sec.122 for program operation and ancillary services.
5. Federal Portion of Support - 50%
6. In-school instruction related to occupational field and training job plus required academic courses.
7. Work periods - Alternate half days, full days, weeks, or other periods of time. (Number of hours of work generally equal the number of hours spent in school)
8. Payment of students --
 - a. Regular wages established for the occupational field.
 - b. Usually at least minimum wage or student-learner rate established by Department of Labor.
9. Age limitations --
 - a. Minimum age 14 as per Child Labor Laws
 - b. Emphasis of Part B programs is for all age groups 15-65 as per allocation of funds of State. (50% based on youth aged 15-19)
10. Eligible employers --
 - a. Public or private

Part G

Cooperative Vocational Education Programs

1. Money appropriated under Part G shall be expended for expanding cooperative education programs by providing additional financial assistance to States which they can use in new ways to provide training opportunities that may not otherwise be available.
2. Purpose - To prepare students for employment in an occupational field.
3. Students served - Individuals who desire and need such education and training in all communities of the State. Priority is for areas of high rates of school dropouts and youth unemployment.
4. Uses of Funds
 - a. For program operation and ancillary services
 - b. Reimbursement of added costs to employers
 - c. Pay for certain services or other unusual costs of students pursuing a coop program.
5. Federal Portion of Support - All or part (100%)
6. In-school instruction related to occupational field and training job plus required academic courses.
7. Work periods - Alternate half days, full days, weeks, or other periods of time. (Number of hours of work need not equal the number of hours in school.)
8. Payment of students --
 - a. Regular wages established for the occupational field.
 - b. Usually at least minimum wage or student-learner rate established by Department of Labor.
9. Age limitations --
 - a. Minimum age 14 as per Child Labor Laws
 - b. Emphasis is for youth aged 15-19 as per 100% allocation of funds to State based on this age group.
10. Eligible employers --
 - a. Public or private

Part H

Work-Study Programs for Vocational Students

1. Money appropriated under Part H is to continue the program of financial assistance to full-time vocational students in need of such funds to stay in school.
2. Purpose - Financial Assistance to complete school.
3. Students served - Economically disadvantaged full-time vocational students.
4. Uses of Funds
 - a. Compensation of students
 - b. Development and administration of State Plan
5. Federal Portion of Support - 80%
6. In-school instruction has no planned relationship to job.
7. Work periods - Maximum of 15 hours per week.
8. Payment of students --
 - a. \$45 per month, \$350 per year (most cases)
 - b. Maximum \$60 per month, \$500 per year.
9. Age limitations --
 - a. 15 through 20 years
10. Eligible employers --
 - a. Limited to public, nonprofit, employers only.

REPORT OF
NATIONAL CONFERENCE ON COOPERATIVE VOCATIONAL EDUCATION
AT THE REGIONAL CLINICS

Cooperative vocational education has an outstanding record of helping young people bridge the gap between school life and the work world. We have heard numerous stories of how immature young people made successful transitions from school to jobs with the help of cooperative vocational education programs. Some of the more spectacular stories involve students whom the schools had previously failed to challenge. Research shows that cooperative vocational education program graduates have the lowest youth unemployment rate in the labor force. Facts like this have stimulated great interest in the potential contributions that cooperative education can make in solving the problems of assimilating youth into the mainstream of adult society.

The 90th Congress apparently thought so highly of the record of cooperative vocational education in preparing the types of students currently enrolled that it earmarked an authorization of funds for extending the program to additional types of students, particularly those in areas with high rates of school drop-outs and youth unemployment. The obvious underlying assumption, reinforced by the definition of cooperative education in Part G of this Act, is that the same type or similarly designed programs, policies and procedures would be equally effective with all types of students; an assumption that remains to be proved. Interestingly enough, the Congress sought to assure its intent that the funds be spent for expanding the program by incorporating a provision for non-commingling of Part G funds with other parts of the appropriation.

THE NATIONAL CONFERENCE

The National Conference on Cooperative Vocational Education, conducted by the University of Minnesota under contract with the U. S. Office of Education, focused on the improvement and extension of this type of program. Two hundred participants representing business, industry, labor, government, education, and community interests, from across the Nation, contributed to the development of recommendations for organizing and operating cooperative vocational education programs.

Throughout the preparation of this paper, the writers were mindful of the wide diversity of participants associated with education-for-work and of the variance in their direct exposure to cooperative vocational education as it is currently known in most states. The contract specified the groups of persons to be represented at the Conference in order to assure the production of innovative suggestions as well as empirical information from ongoing programs.

Initially we were concerned with the situation among participants in which things seem simple to the ignorant and its antithesis in which too much analysis leads to paralysis. Fortunately, this concern soon abated due to outstanding presentations by the consultants and panel members and particularly to the excellent work of an extremely able group of ten eminent task force leaders. We wish that it were possible to share with you the unabridged presentations and discussions.

The mission of the Conference was to develop creative and viable suggestions for extending, expanding, and improving cooperative vocational education in implementing Public Law 90-576, particularly as it pertains to Parts B and G. The first key to a productive meeting was

to arrive at an understanding of the term cooperative vocational education program which is defined in the Act itself. Further indications of congressional intent concerning the meaning of the term seems to be implied in the independent provisions for work-study programs for vocational students in Part H of the Act and in Part D which earmarks funds for exemplary programs and projects. Hence, we must keep in mind that the Act provides a number of sources of funds for programs which combine work and education.

In fairness to those involved in planning the Conference and reporting the results, an explanation of the time limits and sequence of related events is in order. Members of this audience should know that the first drafts of the Rules and Regulations concerning the Amendments of the 1968 Act were not available during the planning stage of the Conference; the first draft of the State Plan Guidelines was not available until after the Conference; and finally, that each of these documents has been revised at least once since the tentative drafts were released. Thus we hope that you will be sympathetic if this presentation does not follow closely the latest set of related documents.

The printed document you receive summarizing the conference contains a copy of the presentation given here, abstracts of the major papers given by the consultants, the recommendations made by panel members; the recommendations of the task force groups arranged in a sequence which follows the "second draft" of State Plan Guidelines; and finally, the major papers presented at the conference. On one of the pages in front of the book, there is a chart which explains the

basic differences and similarities of programs combining work and education under Parts B, G, and H of the 1968 Amendments. This chart will be helpful to you in determining what types of programs can be funded under the three parts of the Act.

PURPOSES OF COOPERATIVE VOCATIONAL EDUCATION

The consultants who presented papers at the conference, viewed cooperative vocational education programs as having one of the greatest potentials for providing youth with educational experiences which are relevant to their needs as they grow up in society today.

Marvin Feldman in his paper, points out that "the major issue facing us in education this year is the incidence of serious growing interracial and intergenerational conflicts in high schools, colleges, and universities across the nation." It is his view "that the fundamental issue behind the crisis is in the curriculum and in the format of public education, to which cooperative vocational education has an important message to deliver." In a proposed model school system which he describes in his paper, vocational education would become the principal core of the modern curriculum, and cooperative education would be the "applications learning laboratory" for all students. The assumption is that the cooperative experience would be tailored to the needs, interests, and talents of the individual student.

Henry Borow, in his paper on vocational guidance and career development talks about the "self-exploration function of supervised work experiences" and the need for cooperative vocational education to expand its goals to include the "fostering of long range career development," not restricting its role to the teaching of the "formal work skills."

As we examined exemplary programs and heard the points of view which participants at the conference expressed, it was evident that there are many different purposes and expectations individuals and groups hold for cooperative vocational education.

The Vocational Training Continuum

It seems to us that our task forces said that there is a continuum of primary program objectives for and about work which is cumulative and ranges from non-vocational to entirely vocational goals as follows:

- A. To earn money in order to remain in school--the work-study program.
- B. To develop the necessary social skills and work attitudes and habits necessary for job tenure or entry into other vocational training programs.
- C. To develop a viable career plan based on realistic self appraisal and accurate occupational information.
- D. To develop a well-balanced combination of vocational competencies that enable graduates to advance more rapidly in a satisfying career.

The School Attitude Continuum

Also, our task forces indicate that there is a corresponding vocational maturity range of educable people beginning with youth of approximately 14 years of age, who are anti-social and school and work alienated and who may or may not be enrolled in school, and extending to highly dedicated, socially sensitive, semi-professional oriented students as follows:

- A. Young drop-outs and potential drop-outs who are not concerned with the need to earn a living.
- B. School drop-outs and potential drop-outs who realize the need for earning a living but who lack understanding of the social and vocational competencies necessary for job tenure.
- C. School drop-outs and potential drop-outs who are willing to work and develop the social and vocational competencies necessary for job tenure but have unrealistic or poorly selected career goals.
- D. Regularly enrolled students in junior high schools, high schools, post-high school institutions and adult programs who are conscious of the need for career plans and are pursuing understandings which will lead to planning satisfying careers.
- E. Regularly enrolled students in junior high schools, high schools, post-high school institutions and adult programs with well chosen career plans.

Special Needs Purposes

The task forces reported that there is a wide variety of special needs among individuals and groups that requires attention in vocational program design and operation, some of which are as follows:

- A. Rural youth preparing for nonfarm occupations in agri-business and distributive occupations.
- B. Inner-city youth with questionable home backgrounds and ethnic factors which inhibit education and employment.
- C. Physically disadvantaged.
- D. Slow learners and mentally retarded.
- E. Emotionally disturbed.

- F. School alienated students of all ability levels.
- G. Juvenile delinquents.
- H. Academically or otherwise gifted or talented.
- I. College orientated regularly enrolled.
- J. College drop-outs.

Homogeneity of Student Goals

Because of the numerous differences in occupations and employer characteristics of a vocational field in the type of skills required, decision-making demands, human relations requirements, way of life of the workers, cultural level, sub-group structure, trade talk and jargon, interpersonal relations, value system of workers, support of education and numerous other factors, the task force held that the more homogeneous the occupational pursuits of the class, the greater would be the probability of achieving high standards and well-balanced competency patterns at any educational level. Hence, they recommended that to the traditional cooperative programs in distributive, office, and trade and industrial programs be added areas such as agri-business occupations, health occupations, food service occupations, tourist industry occupations, and home service occupations.

There seemed to be general agreement among the ten task forces that standards of achievement in balanced competency patterns should be maintained regardless of type of program offered, and that classes of students with relatively heterogeneous occupational goals (interrelated) should be evaluated by the same criteria and standards as those with homogeneous goals.

One task force recommended that (1) heterogeneous (interrelated) classes be used at the lower grade levels, (2) that team teaching be practiced to provide for differences among fields, (3) that individual instruction and counseling be compulsory, and (4) that whenever possible employers be compensated for individual instruction and counseling. Under such conditions it might be possible for a student to receive job training in several different fields for career exploration purposes and understanding of work environment differences. This group also suggested that the higher the grade level the more vocationally specific in nature the program should be.

A suggestion was made by one task force that adequate exploratory experiences should be provided to drop-outs and potential drop-outs before selecting a career field or an occupation. They felt that positive attitudes should be developed prior to getting a job in order to preclude additional discouragements.

Purposes Under Part G

The task forces concluded that use of Part G funds should be spent primarily in new fields and types of cooperative education. They felt that (1) there is much to be gained by extending some derivative of cooperative vocational education into the seventh and eighth grades, (2) at the lower levels the program should transcend occupational fields in an effort to give students broad experiences on which to base occupational choices, (3) most junior high school students likely will not have selected a career goal, (4) integrated (heterogeneous group) programs are feasible in high drop-out and high unemployment areas, (5) work stations for the young may be acquired because of the youth's

age and physical capabilities rather than because of his skills, and (b) because of age and physical capabilities employers may not be able to provide a variety of experiences and be inclined to retain the student on a routine task for an extended period of time.

One task force recommended that any state or community desiring to initiate a program under Part G should not be allowed to do so unless provision has been made for cooperative vocational education support under Part B and vice versa.

Rural Youth Program Needs

There was a general recognition at this conference that rural youth were not being adequately served by existing programs. Programs just did not exist in many smaller communities. Students were not being prepared for satisfying productive work roles in their own communities, nor were they prepared to take jobs in urban centers where employment opportunities were available.

Several suggestions from the task force groups were:

1. Employ circuit teachers to serve several school districts and coordinate the cooperative vocational education of students in those districts which can benefit from the training.
2. Provide school bus transportation from small communities to urban employment centers.
3. Create employment opportunities by establishing business or trade services operated and supervised by the school.
4. Provide school bus transportation of students to centers where cooperative vocational education is available.

ANCILLARY SERVICES

The critical shortage of qualified personnel at both State and local levels may well be our biggest "hang-up" and we will need to spend money to solve this problem before we can make any major extensions of programs. In the regional clinic discussions and in State Plans, we hope you will address yourselves to this problem.

Training and Salaries of Coordinators

One of the major concerns of those who attended the conference was how can we expand and extend programs when at this very time the supply of properly qualified teacher-coordinators to maintain and expand existing programs is grossly inadequate. In the keynote address, Congressman Roman C. Pucinski was very emphatic about the need for trained coordinators. He said:

The first and most important use of federal funds is for the training and salaries of coordinators. If there are not good coordinators, no cooperative program will be a success. They serve as the vital link between the student's job and his school experience. Good coordinators can also serve as catalysts for change, also change agents, both within the school and between the school and the business community because business alone cannot do this job. They need the expertise of the educator trained in vocational education. They can break down the walls of hostility and snobishness which too often exists between academic and vocational educators.

The coordinators can help to breach this wall between the two segments. They can design programs which are attractive to academic students, especially cooperative jobs in semi-professional and other white collar areas.

Mr. Pucinski's remarks were reinforced by a former Distributive Education student-trainee, Ann Ewalt, Central Region Vice President of

DECA. In her panel report, she emphasized the importance of having well-trained coordinators and paying them salaries commensurate with the responsibilities they have. This nineteen-year old was telling us to invest funds in the training and salaries of coordinators.

Every speaker at the conference referred to the key role of the teacher-coordinator. The consultants representing organized labor indicated that successful relationships between cooperative vocational education programs and labor groups depended on the coordinator's approach to labor representatives. The employer representative, Mr. Robert Guelich, Vice President of Montgomery Ward, spoke of the need for "vocational educators with occupational experience and for persons who understand the requirements, demands, and atmosphere of the work situations of their students. In addition, they must be able to communicate effectively to students and employers; and most important, is a sincere interest in providing their students with guidance and inspiration as they help them establish solid vocational foundations."

From the major speeches, the recommendations of panel members and the task force discussions we can describe the qualified cooperative vocational education teacher-coordinator as an expert in the occupational fields for which he trains students, in vocational guidance and counseling, in public relations with all of the audiences concerned with cooperative education, in prescribing and directing the learning experiences of student-trainees, and in organizing the resources of the school and the community to serve the needs of students. Physical stamina, dedication, and a warm outgoing personality are implied from the specific qualifications they recommended. Obviously individuals with these qualifications are not wandering around looking for jobs.

According to figures Congressman Pucinski quoted, less than 5% of the students in our schools are now being served by cooperative education. In schools where there are successful programs, many more students apply than can be accommodated by existing personnel and facilities. Those who are turned down, and often "turned off" as far as education is concerned, are students who might benefit most from cooperative vocational education. The significance of this is that we have to invest funds in the identification, recruitment, training and salaries of teacher-coordinators in order to improve and expand existing programs and to extend cooperative vocational education to individuals who have not been served.

Curriculum Materials

In addition to providing funds for the training of teacher-coordinators, another area of pressing need in ancillary services is for curriculum materials. The teacher-coordinator's job is complicated by the fact that much of his time is spent in locating, and even writing, common instructional materials which are tailored to the competencies required in the occupation for which the individual students are training. Many of our curriculum materials are the results of the labor of love and the "left-over" energies of highly dedicated teacher-coordinators and other personnel in vocational education who assume this writing as an additional responsibility.

As we expand cooperative vocational education programs to include education for new and emerging occupational fields and different groups of students, we will need new related instructional materials, and particularly individualized learning packages. Consideration should be given to employing specialists at the State level for the development of instructional materials.

RELATED INSTRUCTION

Another requirement of cooperative vocational education is related instruction. As Congressman Pucinski stated in his paper:

The second purpose for which federal funds can be used is for instruction related to the work experience. Since only limited funds were authorized, Congress intended that this money be used for instruction which is directly related to job experience and not for general vocational or academic instruction. We have already seen evidence of vocational education funds being siphoned off into the basic academic courses.

The level and nature of related vocational instruction varies with the requirements of the occupations being studied. There are certain skills and achievement levels that can be developed without cooperative employment. Conversely, there are other competencies that cannot be developed without participating in bona-fide employment. The largest percentage of job competencies in many occupational fields are best learned through a combination of school and job experiences. Still other modern day vocational competencies are most effectively developed through club affiliated activities. Hence in many cooperative vocational education programs, the classroom, the job, and the club are sources of carefully planned learning activities leading to well-balanced occupational competency patterns.

Competency Areas

A number of task force members felt that each of the three primary learning sources--classroom, job training, and club--contributes to the development of three interdependent areas of occupational competencies in mixes that conform to the needs of students and requirements of the occupations being pursued. These areas are (1) specific vocational and

technical occupational competencies, (2) occupational adjustment competencies related to the job environment rather than to the occupation itself, and (3) competencies related to the students understanding of his abilities and interests as they relate to occupational requirements and opportunities. Some participants were firm in their belief that all cooperative vocational education programs should focus on an appropriate mix of these competency areas, and that the block system which treats these competencies in a sequence is much less effective.

Role of the Teacher-Coordinator

The teacher-coordinator should be a "director of learning" drawing on a variety of resources and individuals to direct a program of instruction and training which helps students achieve a satisfying and satisfactory work role. When the problem is lack of basic skills, he refers the student to a source of remedial help. The teacher-coordinator helps the student in arranging the combination of materials, methods, and sources of help needed to prepare him for occupational entry, adjustment, and advancement. The resources of the school, the community, and the employment situation are used to provide a relevant effective vocational learning experience.

Generally the task forces favored the pattern of having the same individual do the coordination and related instruction. In some large schools, the coordinator does not teach any classes but may be responsible for placement and follow-up of as many as 100 students. The advantage of having the coordinator teach the related instruction is that he can plan learning experiences which are relevant to the needs of the students in their jobs. Another suggested pattern for large school systems was having one individual assume the responsibility for locating suitable training stations and possibly for initial placement. Then

the teacher-coordinator in the specific program can take over the responsibility of follow-up and direct the related instruction.

In schools using modular flexible scheduling and independent study, the related instruction may become more individualized. There will be a greater demand for job study materials and individual learning packages which are not readily available at present for all types of occupations.

The task force groups are not suggesting that group instruction be abandoned. In fact, one of the desired outcomes of related instruction classes is the exchange of information and experiences among student-trainees. Through group discussions they are able to clarify work-related values and discover how other student-trainees go about adjusting to their jobs.

Team teaching and bringing into the classroom specialists and technicians from business and industry were suggested as ways of providing related instruction. Retired technicians and professional people in the community might also serve in this capacity.

Patterns for Cooperative Vocational Education

While most participants at the conference favored the traditional concurrent school instruction with released time in the afternoon for on-the-job training, it was felt that we should not limit our programs to this single pattern.

The definition in Part G of the Act states: "Work periods and school attendance may be on alternate half-days, full-days, weeks, or other periods of time in fulfilling the cooperative work-study program." Therefore, we should explore and evaluate various patterns as ways of accomplishing our objectives.

The task force groups also recommended that cooperative vocational education programs should operate on a 12-month basis, with appropriate breaks for students and teacher-coordinators, to better serve the needs of students and to better utilize the available training stations during the summer.

Need for Exploratory Experiences

One of the major concerns in a number of discussions was the need for youth to have exploratory experiences in which they have had the opportunity to learn about a number of careers before specializing in an occupational field. Although nearly everyone accepts the idea that career plans of cooperative education student-trainees are tentative, there seems to be general agreement that when the cooperative education experience is matched with the current career interests of the student a more productive learning experience is achieved. Therefore, more attention must be given to the guidance of youth in vocational planning and decision-making prior to entering specific occupational programs and especially on-the-job training. At the same time, we must guard against premature "tracking" and must keep many options open such as other occupational opportunities and going to college or vocational-technical schools. If the cooperative vocational education program is to function properly it must be preceded by an effective guidance program beginning with the early school experiences of children.

The task force groups recommended that the entire educational program of the schools, K-12, should focus more attention on preparing youth for occupational entry--developing basic skills relevant to education for work.

Community Involvement

Perhaps we became more aware of the importance of community involvement in cooperative vocational education because of the diversity of interests that were represented at this National Conference and the concerns that these representatives had for cooperative programs. A panel speaker from the Urban League stated, "Education must be made more relevant to community needs.

If we want the local schools to institute new programs or to provide the means for improving and expanding existing programs, community support is necessary to get the schools to respond. Unfortunately, in many communities there are key groups who do not understand our objectives, and who may even block the development of programs by their duplication of efforts to provide job training or by offering job placement services that do not result in satisfactory and satisfying occupational adjustment for youth.

In forming State advisory councils and local advisory committees, the task force groups agreed that we need a wide range of interests represented on the central advisory committee for cooperative vocational education, in a state, an area, or a community. Under this umbrella type council, there should be smaller committees organized to serve specific programs, such as cooperative office education, whose members would be employers, employees, and student-trainees who could give specific suggestions on the related instruction and operation of programs in their occupational field.

The task forces recommended that in our efforts to extend programs to the disadvantaged, we should draw on the community action groups, such as the Urban League and the Model Cities Projects, to better under-

stand the needs of groups we are trying to serve and to enlist their support for programs. It was also suggested that various community agencies--the Employment Service, the Small Business Administration, etc., can provide services which will contribute to the effectiveness of cooperative programs.

The National AFL-CIO representatives who participated in the Conference voiced strong support for our programs, but indicated that at state and local levels their representatives had not always supported cooperative vocational education programs because they had not understood the objectives or had not been involved in the planning and organization of programs. In some communities cooperative education is viewed as a threat to displace regular workers--not as an educational program.

The task force groups recommended that cooperative vocational education be extended into many more occupational fields. Congressman Pucinski states in his paper that Congress intended that training should be extended to new and emerging occupations. A panel member representing hospitals asked why we were not preparing more people for the health occupations. The Act itself mentions the participation of government employers who have participated only to a limited extent. It was suggested that there might be cooperative programs for students who wanted to work in social service occupations, and that training could be given in the social agency offices. It was the consensus of the task forces we should plan new programs beyond the traditional office, distributive, trades, ag and home-ec related programs that we now have.

EXPANSION FACILITATORS IN PART G

Reimbursement of Employers

A third purpose of the funds under Part G is to "reimburse employers for the added costs of training beyond the ordinary costs of training new employees." The policies and procedures of the State Departments of Education must assure that payment for added costs will be made only when it can be established that without such reimbursement employers cannot provide quality on-the-job training. These added costs must be set forth in the training agreement indicating the cost factor applied, the amount of funds to be paid and the duration of the reimbursement. The ordinary costs of training new employees should not be reimbursed.

As Congressman Pucinski stated in his paper, "student-trainees should receive full wages while enrolled in the cooperative vocational education program." Task force discussions indicated that wages are an important part of the trainee-employer relationship and the commitment of both parties to achieving training objectives.

A suggestion was made that in firms where a number of disadvantaged or special-need student-trainees are placed, consideration may be given to reimbursing the employer for a special supervisor or coordinator whose total responsibility is the training and supervision of cooperative education student-trainees. A research report by Dr. Trudy Banta given at the conference indicated that many of the student-trainees in a number of cooperative programs for the disadvantaged needed intensive counseling and individual help with personal problems while they were trying to adjust to the work situation and new patterns of living that were conducive to success in their jobs.

A written training plan is essential in order to identify and "cost-out" activities not normally provided in the firm's regular training program. Categories of eligible costs should include:

1. Additional time of training sponsors
2. Special instructional materials and special equipment
3. Special formal training sessions not normally provided
4. Clerical help required to keep necessary records and reports

It was the general consensus of the task force groups that only in rare instances would employers be reimbursed for added costs. These funds should not be used to induce unworthy employers to participate nor should the availability of funds cause regular workers to be displaced. As soon as the student-trainee can carry his share of the workload and becomes a productive worker, reimbursement should be discontinued.

Most of the participants at the conference did not conceive of there being a great need for employer reimbursement, possibly because existing programs for regular students have not suffered for lack of employers who are willing to participate. When we try to place large numbers of students with sub-minimum qualifications or students who will require an unusual amount of supervision, reimbursement for added costs may become more important.

It will be necessary to evaluate reimbursed training carefully. This emphasizes the importance of written training plans. It was also suggested that students might participate in evaluation of reimbursed training by completing "training profiles," which are forms on which they indicate the amount of training they received in areas which correspond with those prescribed in the training plan.

Added Costs to Students

A fourth purpose for funds under Part G is to pay for "certain services, such as transportation or other unusual costs that individual students may not reasonably be expected to assume while pursuing a cooperative work-study program."

Regarding transportation, the task force groups recommended that consideration be given to providing school bus transportation. The problem is one of the availability of public transportation from the schools to the training stations. One school bus might serve several schools and deliver the student-trainees on some regular pre-arranged schedule. This may be more economical and more efficient than providing funds for students to develop their own means of transportation.

The reimbursement to students for other added costs are perceived as being essential for helping some students get started on a job. It might be for a uniform, a set of tools, or even medical care which the student needs in order to begin the training. When he starts receiving wages he should learn to assume responsibility for budgeting his earnings and paying his expenses. For some there will be a period of difficult adjustments and the coordinator will need to work with these students on money-management and living within one's income.

Non-Profit Private School Participation

The State plan must indicate that "provision has been made for the participation of students in non-profit private schools--to the extent consistent with the number of students enrolled in non-profit private schools in the areas to be served, whose educational needs are of the type which the program or project involved is to meet."

This part of the Act refers to non-profit private schools as distinguished from proprietary private schools, which are privately owned and operated for a profit. In Part B there are provisions whereby proprietary schools can under contract with the State receive funds to operate programs. Part G funding however does not pertain to proprietary schools. The non-profit schools include the parochial schools and a few trade schools which are operated on a non-profit basis.

In areas of high drop-out rates and youth unemployment the needs of students in the private schools are not unlike those of students attending the public schools. These children must be provided equal opportunity to find themselves in their vocations and in the world of work.

One of our panel speakers was a Federal Projects Coordinator for the Minneapolis-St. Paul Catholic Diocese. As he pointed out, "when it comes to educational programs and government aid, the private schools are informed after-the fact rather than be involved in the planning and development stages." The non-profit private schools are ready and eager to help plan cooperative vocational education programs. There are Government Program Coordinators in most of these schools who should be contacted to participate in the planning of programs. The provision would be for students from the non-profit private schools to come to the public school for related instruction and supervision of on-the-job training.

Priority Funding Under Part G

Part G of the Act states that "priority for funding cooperative vocational programs through local educational agencies is given to areas

that have high rates of school drop-outs and youth unemployment." Your State plan must contain policies and procedures which assure that these two factors are considered in approving and funding local programs.

These two criteria serve to focus the impact of the earmarked funds on the high school group in the socio-economically disadvantaged areas. The assumption was that cooperative vocational education will help make school more relevant for potential drop-outs and thus help retain them in school. It was further assumed that cooperative vocational education can help prevent unemployment by creating placement mechanisms, developing appropriate work habits, and providing needed skills.

The use of the need criteria (high rates of school drop-outs and youth unemployment) implies that students should be "selected in" to the program rather than "selected out." The local school identifies a group of students who need cooperative vocational education that cannot be provided in the existing programs, and then submits a plan to the State department for Federal funding.

The State department would be responsible for allocating funds to the programs located in areas with the highest rates of drop-outs and youth unemployment. Therefore it will be necessary for the State to have available the unemployment rates for 15 to 19-year olds in the areas requesting programs and the drop-out rates from official school records. As was brought out at the conference, definitions of "drop-out" and "unemployment" must be consistent among communities and States. In determining priorities it was suggested that States should use average drop-out and unemployment rates over the previous three-year period. This would measure persistent drop-out and unemployment, prevent large fluctuations in obtained rates, and give each school a chance to operate

a program on some reasonably stable basis. Unfortunately we can give you no simple formula for determining priorities or the relative weights that should be given to each of these factors.

While the money allotted to each school district should initially be based upon student need, it is inevitable that the schools ability to use the money advantageously must be considered in determining subsequent allocations.

SUMMARY

In summary, these are the essential elements of a quality cooperative vocational education program that task force groups and consultants have recommended:

1. A well-qualified, highly dedicated teacher-coordinator.
2. Related instruction focusing on technical competencies, career development and occupational adjustment and taught by the teacher-coordinator.
3. Adequate time for the teacher-coordinator to supervise instruction and on-the-job training.
4. Adequate facilities, equipment and materials to provide instruction related to the student's job and career goal.
5. Placement and instruction matched to the student's career interests, abilities and aspirations.
6. Pre-vocational education and guidance services which prepare students for selecting the most appropriate training opportunity.
7. A student-directed youth organization like FFA, DECA, etc.
8. A selection of cooperative vocational education programs to serve the needs of students of different abilities, career interests and aspirations--including the disadvantaged, the non-profit private school students, and the drop-outs.

9. Full wages and credit toward graduation while receiving on-the-job instruction.
10. Written training agreements and individual training plans developed and agreed upon by the employer, training sponsor, student, and coordinator.
11. Community involvement in planning, organizing and supporting cooperative programs.
12. An advisory committee composed of representatives from business, industry, labor, the school, and students enrolled.
13. Compliance with all state and federal laws regarding employment practices.
14. Continuous evaluation and revisions based on follow-up of student-trainees and achievement of program objectives.
15. Ancillary services to provide in-service teacher education, supervision, development of curriculum materials, evaluation and research for the improvement of cooperative education.
16. Adequate funds to support a quality cooperative vocational education program.

It is impossible to share with you in one hour all of the ideas and recommendations that were developed at the National Conference on Cooperative Education. Our summary was assembled quickly to provide some guidelines for writing State Plans. The final guidelines document which should be available by the end of June will be more complete and hopefully useful in planning and organizing local programs.

Major Questions to be Answered

In the discussions which follow, we ask for your ideas and recommendations on the following questions:

1. How can we identify, recruit and prepare the personnel needed to expand and extend cooperative vocational education?
2. How shall we gain the needed support of the community and the schools to expand and extend cooperative programs?
3. What can be done to improve the pre-vocational and guidance programs so that youth are ready for cooperative vocational education?
4. What kinds of in-service teacher education programs are needed to improve the effectiveness of cooperative programs and how do we get teachers to participate?
5. How can we improve the image of cooperative vocational education in the eyes of students, parents, counselors, school administrators, and the community as a whole?
6. What are the immediate steps that should be taken tomorrow or next week to organize programs for those who have not been served and who can benefit from the training?

The Honorable Roman C. Pucinski
Congressional Representative from the State of Illinois
National Conference on Cooperative Vocational Education
Minneapolis, Minnesota
February 2nd 1969

ABSTRACT

Congressional Expectations of Cooperative Vocational Education

Across the country youth are challenging their schools with telling cries of irrelevancy. They want to make their school experience relevant to their lives.

Cooperative education can help to break down these artificial barriers between school and life. By blending a meaningful job experience with related educational courses, cooperative vocational programs are ideally suited to bring relevancy to our schools. Schools owe their students the duty of making them employable for decent and gratifying jobs.

The value of cooperative education in occupational preparation and personal development is rapidly being adopted as an integral part of the curricula in colleges, universities, junior colleges, and high schools. Yet cooperative education is available to a very small percentage of the students who want and need this type of training.

According to the National Advisory Council on Vocational Education, "Cooperative education had the best record of all vocational education programs in terms of the preparation of students placed in occupations for which they were trained."

Congress earmarked funds in the 1968 Vocational Education Amendments to induce school districts to initiate and expand vocational cooperative programs, especially in new and emerging job fields. As the value of these programs becomes known, hopefully they can be supported from general funds.

Under Part G, Federal funds may be used for four purposes:

1. Training and support of coordinators.

The success of cooperative programs rests on the ability of coordinators to serve as catalysts of change both within the school and between the school and the community. They must furnish students with attractive jobs and relevant curricula, cultivate businessmen's interest in school and in vocational education, and bring the school and the community together in the education of young people.

2. Instruction related to work experience.

The limited funds authorized were intended for vocational instruction directly related to job experience.

3. Reimbursement to employers for certain added costs.

The intent was that employers should pay students a full wage and provide them with jobs where they can advance, but should be reimbursed for costs over and above the costs of training ordinary employers.

4. Payments to students for certain costs.

The intent was to overcome minor economic obstacles which prevent students from participating -- tools, carfare, books, uniforms, etc.

The statement in the law, "opportunities which might not otherwise be available" may be interpreted two ways: in people and jobs. Part G is an effort to break down the doors of exclusion for disadvantaged youth. These youths must be given the opportunity to learn the skills and personal traits required for occupational success. Congress also intended that cooperative vocational education would be extended into new and emerging job fields.

We can no longer tolerate an educational system which fails to prepare individuals to assume creative productive and satisfying roles in the world of work.

Henry Borow
Professor, Psychological Studies, University of Minnesota
National Conference on Cooperative Vocational Education
Minneapolis, Minnesota
February 26, 1969

ABSTRACT

Vocational Education, Guided Work Experience, and Career Development
A Psychologist's View

Despite verbal commitment to radical change in the aims, design, and operation of vocational education programs at all levels, the rate of modification in such programs within the schools has not been impressive. The history of twentieth century education has been marked equally by a series of challenges to conventional educational philosophy and practice and by the ensuing failure of proposed new departures to leave pervasive impact on traditional modes of schooling. The resistance to change to be found within the general patterns of schooling is repeated within vocational education. The 1963 Vocational Education Act, in fact, was as much a Congressional mandate for overdue change as a national endorsement of vocational education itself.

Despite the encouraging disposition of present-day vocational education toward self-reassessment and reformation, several conditions exist which restrict its ability to serve the vocational planning and preparation needs of temporary youth. A number of these conditions are below and each seems pertinent to any consideration of how improved cooperative vocational education may be implemented under the 1968 Amendments to the Vocational Education Act.

- 1) An artificial division persists between the vocational curricula and the college preparatory curriculum of the secondary schools. The so-called "comprehensive" high school is in most instances divisive rather than truly comprehensive and thwarts the attainment of some of the important aims of vocational education for all school youth. Those enrolled in the vocational curriculum are unreasonably stigmatized while those in the college preparatory curriculum are denied direct and formal exposure to education about work although their occupational education needs can be shown to be considerable.

- 2) Students are too frequently "locked into" specialized vocational education curricula before they are sufficiently mature in vocational motivation and self-understanding to make highly specific occupational program choices. One consequence is that vocational options for many young people are being prematurely narrowed at the very time that the school should be broadening them. For a student who discovers that he has chosen the wrong program, it often becomes quite difficult to change his plans and reset his occupational and educational sights.
- 3) Too many vocational education curricula continue to stress the acquisition of discrete job skills with limited occupational transferability. The net effect of such narrow preparation for a work world now exhibiting an increased rate of change in the structure and the human requirements of its occupations, as well as in the complexity of human career patterns, is to train for worker obsolescence.
- 4) Cooperative vocational education programs have typically laid heaviest emphasis on the teaching of formal work skills. Yet, studies of adolescence strongly suggest that it may be the reality testing and self-exploration functions of supervised work experience at this stage of the student's career development which potentially make the greatest contributions to a smooth transition from school to work. Thus, it is in learning how to exploit the self-clarification and maturity-nourishing potentialities of guided work experience that work coordinators in cooperative vocational education may have their greatest need for improvement.
- 5) In sometimes assigning highest priority to vocational training in fields where worker shortages are believed to exist or expected to develop, vocational education policy may be emphasizing manpower development and utilization at the expense of individual development. While vocational

education within the democratic setting must recognize both needs, its central obligation is to the fullest psychological growth and career development of each student.

Studies on the attitudes and related behavior of secondary school youth strongly suggest the need for cooperative vocational education programs which stress rich and varied opportunities to explore environmental options and the development of a broad spectrum of generalizable skills, understandings, and personal commitments. Support for this conclusion is provided by such research findings as the following:

1) The occupational information possessed by secondary school students is generally limited and of doubtful accuracy. Many students possess distorted and simplistic stereotypes of their preferred occupations; 2) opportunities to work on an outside job and exposure to particular school subjects are often instrumental in shaping students interests and tentative curricular and occupational aspirations; 3) probably well over fifty per cent of high school students change their occupational preferences between the tenth grade and the first-half year beyond the high school diploma; 4) the educational plans of high school students are often founded on short-term considerations and are frequently unrealistically modest in terms of their stated occupational goals; 5) youth from culturally disadvantaged settings are frequently distrustful of the value of additional formal education for socioeconomic advancement and they fail to see the relation between their educational and their occupational aspirations. Compared with middle-class urban students, youth both from depressed areas and from rural backgrounds tend to have limited educational goals and restricted ranges of occupational perceptions and aspirations; 6) substantial numbers of graduates of secondary-school vocational education programs enter fields different from those for which they were trained. There is little evidence to suggest that their school counseling furnished them with effective guidance in using their vocational courses and supervised work experience to chart realistic educational-vocational plans for the future.

In summary, an expanded set of goals centering on the fostering of the student's long-range career development must be added to the conven-

tional goals of cooperative vocational education. These objectives are concerned with the building of occupational awareness and with educating the student to assume responsibility for the rational and effective planning and management of his own career.

John A. Sessions
AFL-CIO Education Department

National Conference on Cooperative Vocational Education
Minneapolis, Minnesota
February 26, 1969

ABSTRACT

The Silent Field and the Dark Sun
Labor's Role in Cooperative Education

Modern industrial technology places far greater educational demands upon the work force than has ever been required in the past. In addition to the skills of their trade, workers need a solid foundation in what have previously been thought of as "academic" subjects and, above all, they need mastery of the techniques of change and flexibility. We need to seek new ways of providing for non-college bound young people an educational foundation which will prepare them for economic survival. Many of these young people have been leaving school before we get a chance to reach them with any sort of program, and a major part of our problem is finding ways of holding them in school.

Cooperative education is one of the ways--not by any means the only way--of meeting the needs of our vocational students. Washington, D.C., has been using a work-study program which has reduced high school dropout rates beyond all reasonable expectation. The program is one of pure income maintenance, with no effort to plan the work in such a way as to relate it to classroom instruction. Cooperative education by bringing the working and learning experience into close relationship should be able to accomplish even more significant results.

In cooperative vocational education, it is essential that both the classroom experience and the work experience be planned as an aspect of curriculum building. This requires joint planning by the schools, the employers, and the unions. Apprenticeship programs, which are actually one form of cooperative vocational education, can provide us with a workable model. The Apprenticeship programs also provide a useful model of on-the-job training at negotiated wage rates, a matter about which organized labor is seriously concerned. Current pressure to relax labor standards for young workers pose a serious threat. Where training involves unusual costs for the employer, subsidization, rather than lowering standards, is the best answer. These problems can best be met when the

work experience grows out of cooperative planning by the schools, employers, and the unions.

properly planned, cooperative education is ideally suited to open up for the student the wide range of opportunities that the future will open up to him.

Robert V. Guelich
Vice President, Public Relations Director, Montgomery Ward
National Conference on Cooperative Vocational Education
Minneapolis, Minnesota
February 26, 1969

ABSTRACT

Today we are encountering a co-mingling of discovery and obsolescence, of idealism and cynicism, of dedication and despair, and these moods pose a challenge to all segments of our society and economy. Education can be the key to meet such challenges; and mature idealists, such as those participating in this Conference, can make impossible things happen.

There are growing polarizations in this country, of blacks and whites, of college libertines who destroy and young people who serve and build. Education for making a living, alongside education for living, must play the key role in bridging these gaps.

The passage of the Vocational Education Amendments of 1968, without a single dissenting vote in either House of the Congress, attests to the now widespread recognition of the importance of vocational education to this country and its people.

Suggestions for effective cooperative vocational education programs:

Students - should have vocational interests and career goals that can be furthered through a cooperative program. Employers hear too often from personnel managers: "Too many cooperative education students do not have career interest; too many are in it for the immediate dollar; too many leave as soon as they complete the program."

Employers - must have clear understanding of program objectives; must have appropriate opportunities available; must be committed to providing significant training experiences.

Schools - must support cooperative programs as an important part of the curriculum, not as somewhat unwelcome stepchildren.

Teacher-coordinators - must be vocational educators with occupational experience; must understand the requirements, demands and atmosphere of work situations of students. Most important is a sincere interest in providing students with guidance and inspiration in helping them establish solid vocational foundations.

Part G (Cooperative Programs) of the 1968 Amendments includes provision for reimbursing employers for unusual training costs. Such reimbursement should be made only if the particular program is primarily in the interest of the community, the individual trainee, and not that of the employer.

National youth organizations such as Future Farmers of America and Distributive Education Clubs of America have done much to instill challenge, motivation and competitive spirit in vocational education students. Educators and employers must provide increased support for such groups - at all levels.

Educators can and should advise employers, and enlist their aid and participation in State Vocational Education Advisory Committees, and in working for legislation consistent with the best interests of vocational education.

It is the task, responsibility, and opportunity of those in cooperative vocational education - including employers - to help make the Impossible Dreams of youth come true.

H. I. Willett
Superintendent, Richmond, Virginia Public Schools
National Conference on Cooperative Vocational Education
Minneapolis, Minnesota
February 26, 1969

ABSTRACT

The School's Role in Cooperative Occupational Education

There is too much visibility of American affluence for any segment of American society to accept hunger, poverty, and unemployment as a natural and acceptable state. If education is to be relevant to today's needs, it must include certain basic educational knowledge and skills plus preparation for entering and progressing in the world of work. The problem carries a challenge but it must be approached with an urgency that recognizes the complexities that have been produced by a number of factors which include the rapidity of change and its effect on people; the explosion of knowledge; the population explosion and urbanization.

Cooperative occupational programs are important for a variety of reasons. With the high degree of specialized training that is required in today's society, it is no longer feasible for the schools to provide all the shops and laboratories that are necessary for occupational training. A closer partnership between the schools and the occupational world is necessary in order to maintain the proper relevance of training to the skills that must be performed. In most occupational fields there are many levels of training that can best be met in a cooperative enterprise. The partnership approach offers avenues of involvement and planning that can be important to both the business interest and the schools. The cooperative approach also has strong implications for staffing the occupational program in order to develop not only the proper skills but also the proper understanding of and attitude toward work.

An attempt is made to describe certain programs and practices taken largely from the Richmond Public School System that would serve to stimulate discussion both in terms of what is and what is not being done. These descriptions involve cooperative programs in the regular high schools. For example, a pilot program enrolling junior high school pupils in distributive education offers promising results. A cooperative work-study class for youth with special needs promises to get cooperative office education down to the lower grade levels where the potential dropout may be served.

Special programs are carried on in cooperation with vocational rehabilitation and the new Richmond Technical Center, which serves as home base for some twenty special programs with extension into cooperative programs in the community. For example, in cooperation with the Virginia Department of Vocational Rehabilitation, trade centers and programs are offered for pupils who have emotional, physical, or mental handicaps that relate to their future employment. They may prepare a person for a college education or they may prepare persons for such jobs as a kitchen helper in a cafeteria or a filling station attendant. Some innovative programs involving cooperative education are being correlated with the Richmond Technical Center.

Special cooperative summer programs have received considerable attention across the nation. One such program was carried on in cooperation with the Richmond Chamber of Commerce and a number of other community agencies. Some important lessons are being learned from these programs that have strong implications for the total school program as they relate to how youth learn and how they are motivated. The success of the summer program carried on with the Chamber of Commerce could best be reflected in the faces of some eleven to twelve hundred youth who received certificates of achievement at a special commencement exercise at the City Auditorium.

The administration, organization, and design of the school system need to recognize the increasing importance of vocational education. On the high school level, much of the needed motivation of youth must relate to their preparation to enter and progress in the world of work, which is a necessary prelude to effective citizenship.

Part G of the Vocational Amendments to 1968 has great implications for the development of cooperative programs if the proper funding is secured. It is time for educators to give careful consideration as to how the resources set forth in Part G can be used to serve the youth of this nation.

The importance of youth involvement must be recognized not only in helping youth to secure jobs but also in helping them to find themselves in relationship to jobs and in relationship to community responsibilities.

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Marvin A. Feldman
Program Officer, Ford Foundation

National Conference on Cooperative Vocational Education
Minneapolis, Minnesota
February 26, 1969

ABSTRACT

The Community's Role in Cooperative Vocational Education

The issue facing us in education is the incidence of serious growing interracial and intergenerational conflicts in high schools, colleges, and universities across the nation. These conflicts at times seem to develop from community tensions and structures, but often the roots of these problems are within the school itself, in the curriculum, in the administration, and the very tasks the students are required to complete as part of their schooling.

Students are supposed to want to go to school and want to absorb the cognitive and behavioral inputs desired by the larger society. Students reject the system for lack of relevance or because the system does not take into account individual differences in how youngsters learn. The curriculum and the format of public education, including vocational education, must be revised to provide education for all youth that are relevant to their needs to become productive and creative individuals in a changing society.

Cooperative education offers a potential means of providing relevant learning experiences, which improve student motivation and develop greater interest in academic work. It can also yield an infusion of young blood in the mainstream of government, industry, and business. Theory and practice are more closely integrated and students find greater meaning in their studies.

A model school system which I would like to suggest would be aimed at establishing an educational framework which is truly integrated into other social formats: industry, business, civil and military services, the greater community. In the elementary school the aim would be on development of fundamental knowledge through concrete experiences, interaction with the environment, and continuing examination of how man uses work for self-support, how major occupations employ knowledge, and how productivity is related to a variety of abilities.

In the middle-school years vocational guidance would be a major objective. Its aim would be to acquaint the student with the workings of industry and commerce to help match his talents with his career objectives. The student would make employment plans that are revised annually based on diagnosis, discussions, predictions, and evaluations by teacher's examinations, and computers. The "middle years" are the time for the student to look inward, to identify his talent, to test himself for later decisions and to try on roles through simulated experiences.

In the suggested model, vocational education would be a principal feature of instruction in the high school. Subject matter would be integrated, or separate disciplines drawn together. There would be three major departments: theory for abstract knowledge; laboratories for self-validation of theory; and an applications department. Cooperative vocational education is the applications department in which students demonstrate their understandings in behavioral ways. All students would have several options available when they graduate--they would be prepared to go to work or to go on to the community college, the technical school, or the four-year college.

The main function of higher education would be to prepare students--for their careers. Broadly conceived, general education would be integrated with vocational preparation to help graduates participate effectively in the culture as well as to earn a living. Cooperative education would also be carried out at this level.

A community-run learning center would "back-up" the formal public school system. Any number of students of various ages, interests and accomplishments for whom the regular educational design has not worked, would attend the community center classrooms. Courses would be self-paced and utilize a variety of learning materials and modern communications equipment.

Filling in the outlines are a large number of techniques including such ideas as older and more talented students teaching younger ones, and those with special problems; student participating in decisions about teaching materials and learning experiences; teachers given time for retraining on the job; and most importantly, the understanding

that--while the emphasis here has been on the more pragmatic skills as a way of connecting young people to learning--social concern is a quality each pupil should acquire. This would include sensitivity to others, awareness of conflict and ways of resolving it; an understanding of human variety, the satisfaction of majority and minority belief systems. Vocational education can become the means of developing social concerns and appropriate modes of behavior for participation in the life of the community.

Recommendations of Panel Members Regarding
Clarification of State Plan Requirements Under Part G Section 173 --
1968 Amendments

"Reimbursement of Employers"

Eugene Dorr, Assistant State Director of Vocational Education, Arizona

1. Payment for added costs to employers for on-the-job training of students should be made only when it is apparent that, without such reimbursement, employers will not be able to provide quality on-the-job training.
2. These added costs should be set forth in the training agreement between the local educational agency and the employer, stating cost factors applied, amount of funds to be paid, and duration of reimbursement.
3. Normal costs in assimilating new employees into work assignments should not be considered added costs. A training plan should be used so that one can identify and cast out activities not normally associated with the firm's regular training routines.
4. Categories of eligible costs might comprise some of the following items:
 - A. Taking students of subminimum qualifications.
 - B. Taking a greater number of students than the employer normally employs and would have excessive training and supervisory costs because of this.
 - C. Added costs involved in completing records and reports.
5. Thought should be given to the maximum payment per week for added costs and the length of time they would be paid.
6. The reimbursement for added costs should allow and encourage cooperative education for the disadvantaged.

"Ancillary Services"

Gordon Swanson, Professor of Agriculture Education, University of Minnesota.

1. Ancillary services have not been defined by Congress. It is important that they be defined in the guidelines and that local education agencies also know what they are. Ancillary services include pre-service training and in-service training of teacher-coordinators, supervision, curriculum development, evaluation and research.
2. Ancillary services have been the most serious bottleneck in the development of vocational education programs. No state has an adequate staff for the job described in the Vocational Education Act of 1968. Mr. Van Tries said that he could always get an appropriation for the vocational programs at the local level but not for the supporting staff at the state level. This matter of providing ancillary services may well be a credibility gap unless something is done.

3. Ancillary services take "lead time". State and local plans involve a five-year planning period. It will be impossible to staff up by July 1, either this year or the next year.
4. You can't have ancillary services unless you institutionalize one way or another. They must be put into the guidelines of state plans and into local operations.
5. Finally, I suggest that as far as ancillary services are concerned, we may speak more loudly by what we omit than by what we put into state plans unless we deal carefully with them. It is the tooling-up part of implementing cooperative education which demands attention if we are to carry out the intent of Congress.

"Priority Funding"

Jerome Moss, Professor of Industrial Arts Education, University of Minnesota.

1. Two criteria have been specified in the act for determining priorities: areas that have high rates of school drop-outs, and areas that have high youth unemployment rates.
2. The State Department should be responsible for obtaining unemployment rates from the appropriate Department of Labor agency, and data on drop-outs should be cumulated by the State Department from official school records. All states should see that consistent definitions of unemployment and drop-out rate are used in each community.
3. In developing priorities each State Department should use the drop-out and youth unemployment average rate over the last three years.
4. At least four unresolved issues should be further discussed in establishing priorities:
 - A. In determining intensity of student need, what relative weight should be given to the school drop-out rate and the 16-19 year old unemployment rate?
 - B. Priority based on intensity of need alone is unrealistic. The number of students in each school district who are not going to college and who are not receiving other forms of vocational instruction should be taken into account in the final decision of allocating funds.
 - C. Assuming some combination of drop-out rate, youth unemployment and number of potential students, results in some index of relative school district need; how should these priorities be used in combination with the total amount of funds available to yield allocations to specific school districts?
 - D. While the money allocated to each school district should initially be based upon student need, it is inevitable that the schools ability to use the money advantageously must be considered in determining subsequent allocations. The ability to utilize appropriate job openings for students must eventually be taken into account in the allocation formula.

"Private Schools and Accounting Considerations"

Robert Van Tries, Assistant Commissioner for Vocational Education, Minnesota

Private school participation

1. There are only a limited number of non-profit private schools prepared to immediately embark on a program of cooperative vocational education.
2. The trade unions are not going to readily accept the cooperative programs in the private trade schools.
3. There would be two forms of accounting for programs under Part G. One would be the accounting of individual programs and the accounting of the financial arrangements whereby the State pays for these programs.
4. The coordination of programs between levels--high school, post-high and adult programs is important. In accounting for programs, in Minnesota we will be relying on a plan for total programs, or a total plan for a non-profit private school, and we will evaluate this total plan, including the cooperative programs, as a basis on which to make a financial determination of the use of our funds.

"General Clarification"

Sherrill McMillen, Deputy Director, Division of Vocational and Technical Education, U. S. Office of Education

1. The Rules and Regulations interpret the Act and what it means.
2. The Guidelines for Developing the State Plan have been rephrased and the first draft will be released in about ten days.
3. The states will describe what they are going to do; they won't be told what to do.
4. The non-commingling feature is in all parts of the Act where 100 per cent reimbursement is provided. This means that you must be able to identify those federal dollars (in this case for cooperative programs) that are 100 per cent federal dollars. You would set up a ledger for Part G of the Act. It does not mean that you must have a separate bank account or do anything different than you are now doing in your fiscal accounting procedure.
5. Like exemplary programs, research, cooperative education and residential schools, Section 173 (a)(6) relating to non-profit private schools, provides for 100 per cent reimbursement. Where 100 per cent reimbursement is available the state must provide an opportunity for private schools in that area (parochial schools or whatever they may be) to participate in these programs on a ratio consistent with the number of students enrolled in the school. For example, if 100 students are enrolled in the non-profit private school and 1000 are enrolled in the public schools, you should provide for ten per cent of the non-profit private school students. Those students would have to come to the public schools to participate in the program the same as any other

student. It means that you will have to make arrangements with these schools to let their students participate in these kinds of programs if they do so desire.

6. Under Part B, Section 122 (a)(7), which relates to a contractual arrangement for offering these programs also found in the 1963 Act, you can contract with a business school, a private school, to offer this training if your state law permits and you so desire.

Recommendations of Panel Members Regarding
Meeting Student Needs

"Students' Expectations"

Ann Ewalt, Cooperative Student Trainee and Central Region Vice-President of Distributive Education Clubs of America

1. Some expectations of cooperative training are:
 - A. An opportunity to meet and work with a variety of people from all walks of life.
 - B. A "head start" on the labor market by developing marketable skills.
 - C. Work at a store that offers good foundation and managerial training.
2. Some expectations of the classroom would be:
 - A. Practical education in areas such as law, problem-solving, buying, mathematics, and anything that coordinates with store training.
 - B. Book learning, classroom experiences and on-the-job training must be carefully coordinated.
3. Certain improvements should be made to insure adequate program success:
 - A. The states should set up more workshops for teacher-coordinators.
 - B. Business and the entire community should become more aware of the cooperative programs.
 - C. The states should set up a check system on the teacher-coordinator.
 - D. Teacher salaries should be improved.
 - E. Communications must be good between the State Department, teachers, students, and employers.
 - F. Coordinators should be taught how to instill pride in their students, and be willing to really work with the club program.

"Recommendations to Employers Concerning Vocational Development"

E. Edward Harris, Professor of Distributive Education, Northern Illinois University, Dekalb.

1. The employer should know the goals and objectives of the program his firm is requested to participate in.
2. The employee should know the roles he and his firm are to play in relation to the proposed educational program.
3. The work experience should be humanized by providing an opportunity for students to derive work satisfactions from pleasant associations with co-workers and supervisors.

4. Adequate opportunities should be provided for personal interviews so the student can explore accurate information concerning the advantages, disadvantages, requirements, and opportunities for advancement in selected occupations.
5. The work experience should provide students with opportunities for initial successes.
6. The matching of students' needs and abilities with challenging work activities should be provided.
7. The work experience should provide students with respect and encouragement in terms of the student's social, personal, and vocational needs.
8. Adequate time for counseling with students should be provided.

"Coordinator Competencies"

Clifford Helling, Vocational Director, Robbinsdale Minnesota Schools

1. He should recognize the stagnant dimension of vocational education and its traditional self-limiting character of being almost exclusively directed narrowly toward the acquisition of skill.
2. He should be aware of the vital fast-changing world of work where the development of understanding and intellectual power of working situations and processes offer the framework where skill competence is acquired and can grow.
3. He should be competent in the transfer to his students of core understandings such as appreciation, process, techniques of investigation and realization of goal-oriented behavior and its implications. This approach can limit the need for retraining.
4. He should be flexible, as is the student he teaches and the world that that person will work in; creative, for change is our strongest trend; and understanding for the student he seeks to educate is not a machine, and he must be adaptable emotionally as well as physically and mentally to the new world.
5. He should understand project goal-seeking investigation techniques. He must realize the status problem vocational education has and he must seek to overcome the "terminal" connotation vocational education has. In motivating his students he must enable the acquisition of skills through the ability to think. He must think of career development in terms of all subjects the students take and their contribution to the whole person and this person's success in the world of work.

Some suggested implications for teacher preparation:

1. He should learn of interdisciplinary contributions to the career development of the student.
2. He should learn of the future of our world of work and prepare for this changing situation in his students.

3. He should be prepared to change the curriculum to transfer meaningfully into today's world. He must know and understand the core concepts that enable workers to cope with change.
4. He should be taught compassion for the human person as the emotional spirit must be happy for the worker to be productive.
5. Since teachers usually teach the way they were taught, they should be using real situations, utilizing multi-disciplinary approaches, and emphasis should be placed on career development as an ongoing integral human process.

"School Adapting to Student Needs"

William Knaak, Assistant Superintendent, White Bear Lake, Minnesota Public Schools

1. A vocational adjustment counselor can be used effectively in providing services to youth, in and out of school, who have vocational adjustment problems, either physical or mental.
2. Cooperative programs for special education students should be developed, along with the traditional programs.
3. A general placement service for students who want to work part-time while attending school should be provided.
4. A Director of Vocational Education should be appointed to supervise and keep the programs in perspective.
5. Coordinators and administrators should constantly seek to develop new ways to meet pupil needs and to refine and improve existing programs.

"The Role of Guidance in Meeting Student Needs"

Lorraine S. Hansen, Associate Professor of Counselor Education, University of Minnesota.

1. There should be more open communication among all administrators, administrator educators, counselors, counselor educators, curriculum specialists, teachers, and teacher trainers.
2. The Guidance Department should make sure that informational programs are more inclusive and comprehensive, that they include all the high school and post-high educational and occupational options available to students.
3. Counselors should find better ways to organize their time so that they can supplement the information-getting and giving with genuine vocational counseling.
4. Counselors should work more closely with cooperative education programs in increasing the opportunities for bringing school and industry closer together, for giving students direct guided work experience, for opening up the school walls for students to go out and for business and industry to come in--perhaps to make it possible for every student in the school to have a cooperative work experience.

5. Counselors should assist in curriculum development, because they are in a key position to identify student needs and ways in which the curriculum is not meeting them.
6. A "team" approach to student needs should be used, rather than the fragmentation approach that exists in many schools.

Recommendations of Panel Members Regarding
Cooperative Arrangements with Labor

"Labor Representative's Point-of-View"

John Peterson, Education Director, AFL-CIO, Minnesota

1. All high school students should have the opportunity to learn good work habits, to learn to work with others, take direction on work assignments, and to accept the responsibility for carrying them out.
2. Students should have on-the-job exposure to one or more jobs to help them make decisions as to what kind of work they feel they would be happy doing and would motivate them to succeed in their careers.
3. On-the-job training should be supervised and coordinated by qualified instructors and supervisors on the job to insure that trainees get work experience in all phases of an occupational field.
4. On-the-job training should be supported with the necessary related and general education.
5. Meetings of those involved in apprenticeship and various other vocational education programs, should be scheduled to work out a coordinated program of academic education, vocational training, and apprenticeship programs to more fully meet the needs of our youth.
6. More training and apprenticeship programs should be developed in new areas to upgrade the skills and incomes of workers.

"Coordinator's Approach to Labor Groups"

Peter Voeller, Director-Community Relations Department, Retail Clerks International, Washington, D.C.

1. Teacher-coordinators and union officials should get together and explain their respective goals and programs.
2. Local unions can be of assistance to vocational programs by providing materials on the labor movement, speaking to classes, serving on advisory committees, and presenting awards and scholarships.
3. Teacher-coordinators should actively solicit the support and cooperation of the local union.
4. The "buddy system" of providing one-for-one counselling service by a regular employee to a student-trainee has been instituted by some labor groups.
5. Literature and other materials on the labor movement should be made available to student-trainees.

"Labors Role in Cooperative Education"

Ron Olson, Coordinator of Cooperative Trades Program, Hopkins, Minnesota Senior High School.

Labor should:

1. Openly invite young people into the skilled labor market and make it attractive.
2. Actively support legislation which contributes to the upgrading and expansion of vocational education programs.
3. Work towards an expanded apprenticeship program both in the metropolitan area and the rural areas.
4. Support the program through the development of worthwhile educational materials in the field of vocational education.
5. Work for labor support at the grass roots level through their locals.
6. Encourage the development of more training stations through good public relations programs and open lines of communication to their locals.
7. Give open and active support to vocational youth organizations such as DECA, MOEA, VICA, FFA, and FHA.
8. Work towards the elimination of any barriers which might exist that would prevent young workers from pursuing their vocational goals.
9. Work towards the elimination of any prejudice against the program.
10. Solicit support from management to make the program more effective.

"Apprenticeship and Cooperative Education"

Ralph W. Dallman, Minnesota State Supervisor, Bureau of Apprenticeship, U.S. Department of Labor.

1. The cooperative education coordinator should acquaint himself with apprenticeship representatives and committees, and explain his program to solicit support and cooperation.
2. It is recommended that an apprenticeship representative be on an advisory committee to the school system, and assist in the development of cooperative work and school programs that would culminate in an apprentice program.
3. The coordinator should consult with local industry representatives to ascertain what they desire apprentice applicants to have completed in trade-related subjects to become employed as full-time apprentices.
4. The coordinator should become familiar with the wide range of advancement opportunities available to individuals after serving an apprenticeship.

Recommendations of Panel Members Regarding
Cooperative Arrangements with Employers

"Training Agreements"

David Thompson, State Supervisor of Distributive Education, Texas.

1. A training plan should include:
 - a. A listing of the on-the-job experiences which the student will receive. These experiences should show progression from simple to more complex job assignments.
 - b. Space for entering the periodic employer's rating of the student's performance on-the-job.
 - c. A listing of the individual or specific lesson assignments which will be selected or written by the coordinator in accordance with the student's planned job progression.
 - d. Space for entering the grade which the student earns for each series of individual assignments.
 - e. Data on the student's beginning wage established by the employer. (Whether or not the business comes under the Minimum Wage Law will have an affect here.)
 - f. Information regarding the length of the student's training period. (One or two years.)
 - g. Approval signatures by the student, the parent, the chairman of the advisory committee, the employer, the teacher-coordinator and the state program director.
2. References to the role and purposes of the training plan should be included in all of the initial conversations with every potential training sponsor.
3. The training plan should be signed by the student, the parents, the school, the business establishment, and the State Department.
4. The role of the training plan should be explained in all individual or group conferences with potential student enrollees.
5. The coordinator's appointment should be for at least ten months so that training plans can be pretty much completed prior to the opening of school.
6. The techniques involved in the development of effective training plans should be included in regular pre-service and in-service training for coordinators of cooperative programs.
7. The coordinator should take precaution to avoid the "stereo-typing" of training plans which apply to the same type of business.

"Employer Arrangements"

Helen Jameson, Director of Nursing, Mt. Sinai Hospital, Minneapolis, Minn.

1. To improve cooperative education in the health career fields, additional funds should be made available for the needed counseling, instruction, and supervision of students.
2. Both formal and informal agreements between school and employer should be made, depending on the situation. Opportunities for flexibility should be provided, especially for the new programs.
3. The need for hospital workers is unlimited and the shortage of nurses aides is critical. It would be helpful if there could be vocational programs to train general health care agency workers.

"Advisory Committees"

Charles Sheehan, Personnel Director, Young Quinlan Rothschild's and Education Chairman, Downtown Council, Minneapolis, Minnesota.

1. Advisory committees should not be too large. Members should participate because they see the need and want to serve, not just to sell their company or attend because the boss told them to.
2. There should be student representation on the committee.
3. There should be some overlap of committee membership to facilitate the flow of communication, when there are various committees in operation.
4. There are many worthwhile activities that can be accomplished by an advisory committee:
 - a. Provide an awards and scholarship program.
 - b. Develop "career clinics" to orient students to various occupational opportunities.
 - c. Encourage local business and industry to donate materials, fixtures, equipment, tools, etc., to local schools.
 - d. Review and make recommendations concerning course content and text material.
 - e. Compile a field trip, resource speaker, film and filmstrip list for use by local schools.
 - f. Participate in the planning of training agreements and evaluation report forms.
 - g. Assist local coordinators in the promotion of their programs to other business and industry leaders, and to the public in general.
 - h. To assist in the development of a "common clearing house" for employers interested in establishing a training station.

"Evaluation of Training"

T. Carl Brown, State Supervisor of Distributive Education, North Carolina.

1. There should be certain specific requirements for cooperative education:
 - a. Related instruction and on-the-job training.
 - b. Placement of students for on-the-job training in career related occupations, using a definite training plan.
 - c. Arrangements with employer for training, supervision, and periodic rating of student's work and attitude.
 - d. Employment arrangements in keeping with legal requirements.
 - e. Provision for a trained teacher who is responsible for coordinating on-the-job training with in-school instruction provided by the teacher.
2. There are various areas for needed research relating to training agencies:
 - a. How to measure growth in terms of expectations of students, employers, and teachers.
 - b. How to measure contributions of the employing agency to the student's development.
 - c. How to determine the effectiveness of a particular training agency.
3. There are certain characteristics of an effective training agency:
 - a. Continuing interest in training young workers, with a well-organized training program.
 - b. Supervisors or sponsors recognize training as an essential part of the job.
 - c. Management encourages and participates in the development and use of training plans directed toward student's career plan.
 - d. Provide progressive learning experiences and responsibility when students have earned it.
 - e. Management takes time to evaluate student and to discuss this evaluation with the student and coordinator.
 - f. Management rewards good work with praise, increase in pay, and increase in position or responsibility.

"Employer Benefits"

Trudy Banta, Research Associate, University of Tennessee, Knoxville.

Why do employers involve themselves with cooperative education:

1. The cooperative student is a source of part-time manpower today and a potential trained full-time worker for the future.

2. This manpower is trained in the company, perhaps even in the very position the employee may occupy later. Future training time and costs are cut for the employer in a cooperative program.
3. The company can feel it's contributing to the reduction of the drop-out rate, thus turning into productive citizens some individuals who might otherwise have become economic liabilities.
4. The publicity connected with participation in a cooperative program can enhance the company image, especially among dissident groups.
5. A company that is particularly interested in community welfare may see the relationships established in working with schools in a cooperative program as a link to cooperation in other areas where the company feels it has a contribution to make to the school's effectiveness.

Recommendations of Panel Members Regarding
School's Role in Cooperative Vocational Education

"Reaching All Youth through Cooperative Education"

Norman Eisen, Director of Education, Whittier, California Unified High School District

1. Cooperative education should provide students the opportunity to "sample" several careers, and appraise first-hand their interests and aptness for a variety of occupations.
2. There is relevance, opportunity, and value in cooperative education for every student in school; the minority students, the non-college and college bound students, the mentally retarded and other special students, and the near drop-out.

"In-School Instruction"

Kenneth L. Rowe, Teacher-Educator of Distributive Education, Arizona State University, Tempe.

1. Instruction in the classroom should be related to the students' career interest area and to their on-the-job needs, both short-range and long-range.
2. Some content of the related instruction program should include occupational skills and job readiness instruction so that the student can perform successfully, certain tasks on the job.
3. To make related instruction meaningful the student should be able to see its purpose, its application, practice it, and discuss it with the coordinator or his training sponsor.
4. Related instruction should be both general and specific--concepts needed by all students and concepts, skills and attitudes customized to the needs of specific career areas, training station demands, and/or individual student needs.
5. Related instruction should be timed to on-the-job application.
6. Competency development through the related instruction program must be realistic to the career needs of the students.
7. Students should be involved in the related instruction program by being given much responsibility for their training both on the job and in the classroom. They should be involved in the development of their training plan and the measurement of their growth and progress on the job.
8. The student should be encouraged to accept the responsibility for applying the group instruction in the classroom to his specific situation on the job.
9. Employers or training sponsors should be involved in the classroom instruction as resource people.

"Organization of Programs in Inner City Schools"

Ann Lind, City Supervisor of Distributive Education, Detroit Public Schools

1. Inner City Schools need to establish a variety of educational opportunities to satisfy the varying needs of students and adults. Cooperative education should be an integral part of the educational program.
2. Special programs are needed to serve:
 - A. Students at different grade levels.
 - B. Students specializing in certain types of occupations.
 - C. Students alienated from regular school program.
 - D. Students of varying abilities.

"Organization of Programs in Rural Communities"

C. W. Dalbey, Chief of Agricultural Education, Iowa State Department of Public Instruction

1. First, a successful and enthusiastic instructor is needed to promote the program.
2. Talks should be given by employers before classes to lay adequate foundations for employment.
3. Meeting of employers and parents should be used to secure mutual understandings of the part played by each party.
4. Adequate training centers should be secured that are manned by employers interested in students and their development.
5. Major emphasis should be placed upon personal factors of the student necessary for successful employment before the start of a cooperative experience program.
6. Students should be followed-up on the job at least every two weeks.
7. The coordinator should have a cordial, yet businesslike approach when working with employers. "Time is money" in the business world.
8. Stress should be given to exposure to new situations in employment rather than on single job of long duration.

"Supervision of Programs in Metropolitan Centers"

Chet Sheaffer, Coordinator of Cooperative Education, Tucson, Arizona Public Schools

1. There is a need for more specialized programs, like in the supermarket field, health care areas, and in food service field which will use the cooperative method of education.
2. Candidates for positions as teacher-coordinators should not only have the technical and professional courses and background, but they should also have an outgoing personality in order to work effectively with the business community.

3. An over-all advisory committee under the title "Cooperative Education Advisory Committee" should be used, along with a number of subcommittees covering various cooperative education fields.
4. An over-all coordinator should be used to coordinate aspects of many school programs that provide cooperative work experience. Some of the responsibilities would be to:
 - A. Work with cooperative education teacher-coordinators in--
 1. Developing teaching procedures for course content for specifically helping students gain knowledge, skills, and attitudes relative to employee-employer relations and employer expectations.
 2. Developing teacher skills in human relations, public relations, and techniques of working with employers and business personnel, as well as in understanding the various viewpoints and needs of the business community.
 3. Coordinating placement, follow-up programs, and youth programs (i.e. DECA) related to the different occupational fields.
 - B. Work with coordinators, department chairmen, and teachers of the specific occupational fields (including Special Education) in which the Cooperative Program is a part in--
 1. Reviewing and up-dating courses of Study for cooperative programs, in keeping with the changing occupational needs of the community.
 2. Developing courses that lead into the cooperative programs.
 3. Helping teachers develop programs for students of several levels of ability.
 4. Organizing and maintaining lay advisory committees for the respective cooperative programs.
 - C. Inform and develop interest of parents, school personnel, students, and the general public about cooperative education in total, as well as in its component parts. Using all types of media, with the assistance of teachers, department chairmen, coordinators, and administrators when needed.
 - D. Work with the principal of the Adult Evening School and with University and Junior College personnel in the development of adult programs related to Cooperative Education.
 - E. Develop and maintain lay advisory committees for the over-all Cooperative Education program.
 - F. Work with lay people, teachers, department chairmen, coordinators, directors, and the administrators in phasing out inadequate cooperative programs and in expanding Cooperative Education opportunities in accord with the needs of the students and the community.
 - G. Work with the state department of vocational education in developing the Cooperative Education program.

- H. Work with the local school district's business office in compiling and submitting mileage reports of teacher-coordinators in the various Cooperative Education projects, compiling and submitting requisitions for equipment under the state reimbursable program. Compiling and submitting various reports as requested by the state offices, as well as compiling and submitting reports of various kinds to the local school administration.
- I. Work with the local school district's engineering office and teachers and administrators in developing plans for new facilities and modifying older facilities.

Recommendations of Panel Members Regarding
Community's Role in Cooperative Vocational Education

"Community Concerns Related to Cooperative Education"

John Doyle, Education Director, Minneapolis Urban League

1. Education must become a joint enterprise between community, private business and the schools.
2. The total community must serve as one large and diverse classroom. The dynamic forces in the community should be used as opportunities for learning.
3. The community itself should play a large role in determining its educational program.
4. Curriculums should become more relevant to the needs of students.
5. More emphasis should be placed on providing for all of the educational needs of the community.
6. Resources from the community should be used to provide valuable learning experiences for the students.

"Private School Relationships"

Leonard F. Urbaniak, Coordinator of Governmental Programs, Archdiocese of St. Paul and Minneapolis

1. Educational needs of youth attending the private schools are the same as those attending public schools.
2. It is recommended that private schools be represented more in the planning and operation of educational programs in which government aid is involved, and available to them.
3. The private schools are attempting to up-date their curriculum to meet the student and employment needs, but they will need assistance in the development of effective programs in cooperative education.

"Relationships with Community Agencies and Projects"

Margaret Andrews, Consultant for Business Education and Placement, Minneapolis Public Schools

It seems that the real problems in working with community relationships are:

1. Interpreting to the community what we see as some of our problems and some of our programs.
2. Translating these problems and programs into proposed actions for the community.

3. Teaching the school how to use these actions which result from that interpretation of these problems.

It all comes right back to the coordinator in the classroom. There are three criteria we must follow:

1. Get a coordinating staff secure enough so that they don't feel they are saying, "I don't know," when they bring someone in to help them.
2. Get a coordinating staff confident enough that other people can do well--that businessmen can come in and help the teacher.
3. Have coordinators willing to plan ahead and to prepare in time for some outside resource speaker.

We have the job of informing the community if coordinators are in a receptive mood.

As Mr. Pucinski said, "We must have input from the community if we are going to have a successful cooperative program."

"Relationships with the Employment Service"

Gary Denault, Youth Services Supervisor, Minnesota Department of Employment Security

1. The Department of Employment Security presently provides many services, such as counseling, testing, and job placement, to graduating high school seniors and high school drop-outs.
2. The Department of Employment Security can facilitate the cooperative education program in a number of ways:
 - A. Provide orientation to individuals or groups on how to prepare for a job, employer requirements, working conditions, employer training programs, and other job information.
 - B. Provide placement assistance to students when needed.
 - C. Provide labor force data, manpower trends and projections, occupational information, shortage occupations locally, statewide, and nationally.
 - D. Provide information on all apprenticeable trades and occupations in that state.
 - E. Occupational tools such as the DOT and GATB are available to the schools.
 - F. It would also seem appropriate for the Department of Employment Security as a manpower agency in each state to sit on the proposed advisory committees.
 - G. It is recommended that all vocational education coordinators familiarize themselves with the various services available from the Department of Employment Security.

"Relationship of Job Corps to Cooperative Education"

**Joseph R. Corcoran, Center Director, Keystone Job Corps Center for Women,
Drums, Pennsylvania**

1. Cooperative education should be conducted with sensitive employers who recognize that time is required to overcome the cultural chasm of the disadvantaged.
2. Cooperative education should be conducted with employers who have developed a social conscience and are willing to place management effectiveness and production efficiencies as secondary goals, at least temporarily, in the process.

RECOMMENDATIONS FOR PLANNING AND OPERATING COOPERATIVE VOCATIONAL EDUCATION PROGRAMS*

9.1 APPLICATION FOR STARTING PROGRAMS

9.11 Submittal of Application

Information to be included on an application for starting a cooperative education program

A. Nature:

1. Occupations for which training is given
2. Characteristics of individuals to be served
3. Institution supervising the program
4. Periods of time for work and school
5. Length of time for student to complete the program

B. Duration:

1. Planning time
2. When the program will begin operation
3. Annual and long-range plan of operating the program

C. Purpose:

Statement of the objectives of the program in terms of serving student needs

1. Occupational preparation
2. Adjustment
3. Guidance, exploration

D. Plan of the Project:

1. Establishment of cooperation with employment agencies, labor groups, employers, and other community agencies in identifying suitable jobs for students enrolled.
2. Determining the added costs to employers for on-the-job training of students, and shall identify the categories of eligible costs of reimbursement to employers.
3. Reimbursing students or paying on behalf of students unusual costs resulting from participation by such students in a cooperative vocational education program.
4. Providing cooperative vocational education arrangements, including verification in the training agreement that students participating in a cooperative vocational education program will not displace regular employees performing similar work.
5. Providing ancillary services and activities at the State level, and in assuring that such services and activities will be provided at the local level, to the extent necessary to assure quality in cooperative vocational education programs.
6. Allocating Federal funds among local educational agencies in areas with high concentrations of youth unemployment and school dropouts.
7. Allocating Federal funds for participation of students in non-profit private schools.
8. Keeping accounting records which assure that each expenditure under Part G can be separately identified as such.
9. Supervising and evaluating cooperative vocational education programs while the students are engaged in on-the-job training and follow-up of students who have participated.

* Sequence follows State Plan Guidelines, Section 9.0

E. Value to Vocational Education:

1. Contributions to instructional effectiveness
 - a. Anticipated improvements in student motivation
 - b. Facilitation of transfer from school to work life
 - c. Utilization of employers' physical facilities and equipment
 - d. Utilization of real-life supervisors and co-workers
 - e. Utilization of first-hand information concerning guidance
 - f. Others
2. Contributions to Scope of Vocational Education:
 - a. Preparation for new and emerging occupations
 - b. Preparation for interdisciplinary occupations
 - c. Effect on occupations presently served
 - d. Effect on range of occupations served from standpoint of ability requirements
 - e. Others
3. Contributions to Manpower Needs
 - a. Effect on youth employment and unemployment in general
 - b. Effect on youth sub-group employment and unemployment
 - c. Effect on long-range labor supply and demand
 - d. Adaptation of program output to manpower needs
 - e. Others

F. Qualifications of Staff:

1. Number and nature of staff positions
2. Technical training (specific) requirements
3. Professional training (specific) requirements
4. Personal traits and attitudes necessary
5. Occupational experience requirements
6. Performance criteria or specific skills and knowledges needed

G. Justification:

1. Data and information on needs of students
2. Data and information on needs of employment community
3. Data and information about drop-out rate and/or youth unemployment
4. Evidence of community interest in program

H. Financial Arrangements:

1. Accounting procedures
2. Costs to be reimbursed
3. Provision for non-comingling of funds

I. Participation of Public and Private Employers:

1. Types of industries, businesses, and government agencies expected to participate
2. Procedure for enlisting cooperation
3. Anticipated contributions of employers to students' education

9.12 Review of Applications

A. Priorities for Funding

Information regarding current and projected manpower needs and job opportunities is necessary in initiating and operating cooperative

vocational education programs. The task forces felt that the following kinds of information should be utilized:

1. Unemployment and employment rates by geographic areas and by occupational categories
2. The availability of suitable work training stations in a geographical area that may extend beyond the local community or local school district
3. Information on student interests and abilities as they relate to available work training positions
4. Information on typical manpower needs (quantitative data) including:
 - a. Youth unemployment rate in the school district
 - b. Specific occupational data on current job openings in the labor market area
 - c. Specific information on labor turnover in the area
 - d. Five-year projections for occupational clusters
 - e. Geographical mobility patterns of youth
 - f. Occupational mobility (career) patterns of young people
 - g. Job qualifications in occupational categories
 - h. The kinds of "hazardous" occupations in which young people could be placed while enrolled in the program
 - i. Information on new and emerging occupations
5. The kinds of skills an employee must possess, equipment he will operate, ability required, etc.

B. Adequacy and Competency of Staff

1. The local educational agency shall provide a staff of sufficient numbers and capabilities to perform adequately and effectively the duties and responsibilities necessary to meet the requirements described in section 9.2 of this plan.
2. Essential competencies of teacher-coordinators
 - a. Ability to communicate effectively with students, employers, labor groups, parents and school personnel
 - b. Ability to provide his students with guidance and inspiration as he helps them establish solid vocational foundations
 - c. Ability to select and use appropriate learning materials and methods for effective teaching
 - d. Ability to coordinate the youth club program
 - e. Ability to write up appropriate reports
 - f. Ability to integrate school, work and club learning experiences
 - g. Ability to utilize appropriate public relations devices and media
 - h. Ability to teach related classes
 - i. Ability to help students make personal adjustments
 - j. Ability to perform evaluation and follow-up activities
 - k. Ability to keep up-to-date on business trends and developments
 - l. Ability to help training sponsors plan and organize individual instruction to be provided students
3. Essential understandings to be possessed by teacher-coordinators
 - a. Understanding of the requirements, demands, and atmosphere of the work situations of his students
 - b. Understanding of the business point-of-view as well as the needs of his particular students

- c. Understanding of Federal and state laws relating to vocational education and employment
- 4. Essential personal qualifications
 - a. Sufficient occupational experience to earn and maintain the respect of the students, employers, school personnel and community and to perform the essential duties and responsibilities of an occupation in his teaching field.
 - b. Warmth and commitment to helping youth make the transition from school to the world of work. (Especially strong commitments are required of personnel who work with disadvantaged students.)
 - c. Public relations qualifications
 - (1) Enthusiasm
 - (2) Attractive appearance
 - (3) Ability to sell ideas
- 5. Consideration might be given to having both male and female personnel in planning a balanced coordination team

C. Adequacy of Facilities

- 1. The school facilities for cooperative vocational education programs should facilitate the development of the skills required in the occupations for which the students are preparing. Equipment needs will vary with the occupations and the needs of the students served. Model stores, offices and shops, laboratories, or simulated work stations with appropriate equipment are highly recommended.

It would be desirable to have the classrooms, labs, and offices for all of the cooperative education programs in the same general location within the school facilities.
- 2. Whereas increasing numbers of programs are using individualized instruction and independent study, consideration should be given to providing facilities, equipment and materials to serve this purpose. This may include a resource center, tape recorders and other audio-visual equipment, storage facilities, etc. A resource center might serve more than one occupational field.
- 3. Adequate private office space, record files, typewriter and direct telephone line are necessary for the coordinator to maintain continuous contact with employers and students.
- 4. In rural schools or in inner city schools, consideration should be given to providing school bus transportation of students enrolled in cooperative vocational education to available training stations. Public transportation systems frequently cannot be relied on to get students to cooperating firms at the times when training is available, or the transportation systems may not operate between the schools and the employment community. One bus might serve several schools and could deliver students along a pre-arranged route. This may be more economical and more efficient than providing funds to students to arrange their own means of transportation.

9.2 REQUIREMENTS OF COOPERATIVE VOCATIONAL EDUCATION PROGRAMS

9.2i Purpose

A. Definition (Regulation 102.3(s))

"Cooperative vocational education program" means a cooperative program of vocational education for persons who, through a cooperative arrangement between the school and employers, receive instruction, including required academic courses and related vocational instruction by the alternation of study in school with job in any occupational field, but these two experiences must be planned and supervised by the school and employers so that each contributes to the student's education and to his employability. Work periods and school attendance may be on alternate half-days, full-days, weeks, or other periods of time in fulfilling the cooperative vocational education program.

B. Purposes Implicit in the Definition:

1. Primary function of cooperative vocational education program

The primary purpose of the program is to facilitate instruction and learning in preparing students for satisfactory and satisfying careers. Financial assistance is secondary. Students needing financial assistance should be assisted in locating employment that has educational values which advance their occupational competencies and which helps them locate an occupational field for which cooperative arrangements can be made.

2. Persons to be Served

Cooperative vocational education programs are meant to serve a wide range of students in a wide variety of occupational fields. It should meet the needs of students at various grade levels - 9, 10, 11, 12 - or as soon as the minimum age requirements are met.

The program should be available to students "who can benefit from the instruction." This implies that all students should be counseled and assisted in choosing the program option which best serves his individual needs.

C. Instruction

1. Nature of Content Materials

- a. Workers should be prepared to be flexible and able to adapt to new business procedures and industrial processes
- b. The curriculum should be broad enough to equip the students to take advantage of a wide range of occupational opportunities
- c. Academic subjects should be made more meaningful and relevant to occupational preparation
- d. Desirable attitudes toward work and toward change should be developed as well as toward specific skills
- e. The teacher-coordinator should make provisions for special instruction and individual help for students who cannot read or lack the basic skills needed for occupational success

2. Curriculum Flexibility

- a. The schedule should be flexible to allow students a variety of patterns for obtaining on-the-job training and completing the related instruction and necessary general education.
- b. Instruction should be adapted to the learning style of the individual. The director of learning must be able to identify the learning style most appropriate for each individual.

3. Characteristics of Instructional Methods

- a. Related vocational instruction should be provided with the appropriate balance of technical competencies, occupational adjustment and career development competencies. The balance depends on the occupations for which instruction is given and on the individual needs of the students.
- b. A large portion of related instruction is of the individual type. Group discussions in which the students share their on-the-job experiences and discuss job-related problems is essential. Insofar as possible, group instruction should be given in homogeneous or occupational cluster groups in order to provide instruction relevant to the occupational fields for which students are preparing.
- c. Teachers in related areas who can develop specific competencies, e.g., math for drafting, should be available to cooperative students who need special competencies in order to participate in cooperative training that is related to their career interests.
- d. Vocational youth club activities should be conducted on school time only if activities have an instructional purpose and focus on occupational competencies. (A youth organization may require financial assistance for participation of low-income students in state and national vocational youth organization activities.)

D. Supervision by the School

Work experience outside the school program often on the pupil's own time, unsupervised and unrelated to academic instruction, is of questionable value as an educational experience.

1. Teacher-Coordinator Student Load

The optimal number of students that one teacher-coordinator could serve with two hours of class and adequate time for follow-up activities is 15-20 students. In programs where the coordinator does not teach the related instruction in class groups, but works with students on a one-to-one basis, it may be possible to serve more students. Generally, a half hour per student per week is needed for coordination time, but coordinators who work with disadvantaged students should be given smaller groups or fewer individuals to counsel and supervise. The maximum number of students assigned to any one coordinator should be thirty-five.

2. Time Allotment for Supervision

The amount of time allowed for coordinators to supervise on-the-job training should be determined according to the

needs of a program in each school district. It is generally agreed that coordination calls on each student should be made at least once every two weeks. The amount of coordination time and the number of students who can be adequately served will vary among school districts, the occupational field in which students are being trained, the geographical distribution of training stations, and the needs of students enrolled in the program.

3. Supervisory Arrangements

- a. Larger enrollments and better supervision of on-the-job training for students could be provided by having clerical and teacher-aides staff to handle routine duties.
- b. Employing a specialist in locating training stations for all types of cooperative vocational education students would result in some efficiencies and give employers in a community a single person to contact in making arrangements for providing training in a variety of occupations. The shortcomings of this arrangement are that the specialist may not know the students, or be able to relate to them on daily problems. One of the desired features of cooperative education is that the teacher draws on the job problems in providing relevant classroom instruction.
- c. It might be possible for a specialist to identify the training stations but have the teacher-coordinator take over the placement and continuing coordination of the training and instruction.
- d. In a multi-school system, a person should be employed at the district level who has responsibility for all cooperative education programs. In smaller districts, one coordinator may be responsible for coordinating programs among several schools and be given special time and salary consideration for this responsibility. The supervision and coordination is necessary to maintain cooperation among schools, to provide a balance of programs in the district and to work efficiently with participating employers, labor groups, and community agencies within the district.
- e. If the number of programs is large, consideration should be given to providing supervisory staff specializing by occupational fields, e.g., office cooperative education, service occupations, etc.
- f. Where there are a number of programs within a district or where there are programs in adjoining districts operating in the same employment communities, it is necessary to maintain coordination between districts and programs in order to maintain harmonious working relationships with participating employers. No single participating firm should be expected to be contacted by coordinators from every school in a multi-school district or a multi-district community. After a student has been placed, then his own teacher-coordinator would work with the participating employer in supervising the training.
- g. Consideration should be given to operating a 12-month program with breaks for students and teachers determined

by seasonable employment factors and the relative educational values of being engaged in cooperative training at various times of the year.

h. Consideration should be given to flexible patterns of providing related instruction in school such as late afternoon classes, evenings and Saturdays. On-the-job training might also be provided by flexible scheduling: in the evenings, on the weekends or whenever the most valuable training time is available. It is generally agreed that coordinators should be employed on a 12-month contract and that cooperative vocational education should be available to students during the summer months.

4. Supervisory Practices

- a. The coordinator is a key person in dealing with the disadvantaged. He needs to be involved in a total community dialogue representing all agencies. The coordinator plays a part by:
 - (1) Removing preconceived attitudes of students
 - (2) Starting and articulating training in the lower grades
 - (3) Providing participation activities to help students develop creativity and responsibility for self-direction
 - (4) Identifying the disadvantaged and working with them
- b. Student-trainees who lose their positions or are temporarily unemployed should receive special assistance in the form of counseling, reappraisal, instruction and attention given to placement in another job. It is anticipated that some disadvantaged or alienated youth will have difficulty in making a satisfactory adjustment to some types of work environments and may have to be moved from one type of environment to another.
- c. Where programs are established for disadvantaged or alienated youth or for minority groups who have generally had a difficult time gaining acceptance in the employment community, a person representing the school will need to work closely with employers and advisory committees to gain support for training these individuals. Participating employers should be aware of the special needs of the disadvantaged students being served by the program, and should be given assistance in training personnel who will be responsible for working with the student-trainees.
- d. In rural communities, where the student population is scattered or the training stations are remote to the school, consideration could be given to transporting students to centers where training stations are available.
 - (1) Two or three school districts may be served by one coordinator who rotates from one district to another on some regular schedule.
 - (2) The State Department should provide leadership in facilitating cooperative arrangements among several schools.
 - (3) An alternative plan for serving youth in rural communities would be transporting them to area centers for related instruction and placement.
- e. Community groups such as Jaycees, Service Clubs, and other organizations in rural communities can contribute greatly to enlisting the cooperation of businesses in organizing effective cooperative programs.

5. Guidance

a. Guidance Personnel

Guidance personnel should be informed on the cooperative programs and the values they have to offer students with various interests and abilities. Counselors should have time for working adequately with cooperative student enrollees. Appropriate measures of abilities, interests and individual needs should be available for background information.

b. Pre-Cooperative Education

- (1) The emphasis on pre-cooperative education should begin early in the educational experiences of children with exploration of opportunities in many occupations. Basic education, academic courses, should focus attention on preparing for work in order that all children can relate to development of basic skills as preparation for the world of work.
- (2) In order for a program to be of greatest benefit, the students must be ready to make some tentative career choices. Vocational guidance should be emphasized during the middle school years. Students should make employment plans which they revise annually based on diagnoses, discussions, predictions and evaluations by teacher's examinations, and computers, etc. The "middle years" is the time for the student to look inward, to identify his talents, to test himself for later decisions and to try on roles through simulated experiences.
- (3) Related instruction given prior to the cooperative training should be broad and focus on clusters of occupational competencies in order that students will have many options when the time arrives for them to select a job which is to be explored in depth.

c. Specific Vocational Training

Several of the task forces felt that cooperative vocational education programs should not force students into "single track" vocational goals, especially when their goals are uncertain. They felt this contributed somewhat to the poor image some students and parents have of the program. However, some members of the groups felt there was a need for specialized training as well as a more general type of training that would permit students to try out several occupations. Some felt that specific vocational training should be done by the business or industrial firm.

9.22 In-The-Job Training Standards

A. Career Opportunities

Under the existing cooperative vocational education programs many interest groups or occupational fields have not been served. Efforts should be made to develop programs which prepare youth for a variety of occupations and in proportion to distribution of employment and career opportunities. For example, the demand for service workers, for health occupations workers, for trained workers in communications and in public service exceeds the supply.

B. Career Interests of Students

There was no difficulty in obtaining consensus on the fact that students should be placed on jobs in line with their career objectives. The student is more interested in his work and will thereby learn more from the experience. Psychologically, it is more advantageous for a learner to be engaged in pursuits which are in line with career objectives. The educational program is more meaningful and the student has a better chance of receiving satisfaction from the experience, as a result of experiencing success in school and on the job. The student will also take more pride in the program if it is in line with his occupational objectives and will be more diligent in applying himself.

C. Training Station Criteria

Some of the criteria for a good training station were discussed. The criteria would include:

1. A station where a student can obtain a broad experience.
2. A station that would lead the unemployed to employment, the under-employed to supervisory or management jobs.
3. A station that would have open-ended opportunities, i.e., upward for those who are able to compete and move upward, but also a horizontal component for those who would reach the level of their competency, but for the sake of proper utilization of manpower be moved from job to job in order to maintain a high level of interest.
4. An employer who is "training conscious" and who is willing to appoint a training sponsor who would be effective in training a student-trainee, and be willing to work with the teacher-coordinator.
5. A place where the student's interests and abilities can be matched with the needs, operations, and objectives of the employer.
6. A station where good training can be received and proper evaluation can be made of the student-trainee's job performance.
7. The station should be relied upon to comply with legal labor standards and other conditions in the training agreement.
8. They should not encourage students to quit school for full-time employment, however there should be opportunity for long-range full-time employment.

D. Federal, State and Local Labor Laws

1. Some of the state and Federal laws affecting cooperative students were discussed. These included labor laws, minimum wage laws, interstate commerce, safety laws, hazardous occupations, and insurance laws. Consensus indicated a need for adjustment in some of the laws, such as hazardous occupations, if more students were to be accommodated. However, it was expressed that some difficulty would exist in relaxing requirements for students under 16 years of age. It was also felt that insurance requirements need clarification on such things as liability of the coordinator, school and employer while the student is going to work, while coming from work and while he is at work.

2. If cooperative education is to succeed, it will have to be on the basis of maintaining the basic standards of wages and hours and working conditions which have been established over the years. Organized labor supports the principle of cooperative education, but will not permit violations of the child labor laws. Organized labor recognizes the value of training for future workers, but at the same time is not in favor of having workers displaced by student-trainees. That is, to say, negotiated wage structures and minimum wage laws should not be relaxed just to accommodate more young workers through cooperative vocational education programs. Instead, employers should be subsidized when they can demonstrate that the costs of training student-trainees is substantial. Cooperative education should not be a threat to the apprenticeship program.
3. Wage and hour provisions were discussed and included the following:
 - a. There are 17 categories of hazardous occupations, 8 of which cooperative students may be permitted to work.
 - b. Student-learner certificates are not issued for repetitive operations.
 - c. Businesses are not necessarily inspected when certificates are issued.
 - d. The teacher-coordinator is mainly responsible for completing the form for the certificate.
 - e. In the metropolitan areas, the majority of student-learner certificates are issued in order that students may work in hazardous occupations, while in the rural areas they are issued to pay less than the minimum wage.

E. Eliciting Employer Cooperation

Employers have diverse reasons for cooperating with schools in providing cooperative vocational education programs. It was agreed that a close cooperation is essential for the success of the program. Some of the points discussed included the following:

1. Employers must evidence commitment to the training program and encourage other employers to do likewise.
2. Coordinators must gain support of the public information media to present information on career opportunities and to stimulate interest in the occupational field.
3. Advantages of program to employer
 - a. The cooperative program is a source of loyal, competent employees
 - b. The backing of the school insures that the employer will have the student-trainee for the entire school year which provides an opportunity to develop competencies in more depth
 - c. The employer feels he is making a contribution by helping the school and the student-trainee
 - d. Employers have the assistance of the school and the coordinator in training a worker
 - e. Workers are prepared for the entire industry as well as for an individual business.
 - f. Workers have a career interest rather than just an interest in a part-time job

- g. The employer expects student-trainees to be satisfied and productive, to advance on a job, and to make a contribution to society.
- h. It is expected that performance will be evaluated to determine the benefit of training.
- i. A comment was made to the effect that more employers would cooperate if some sort of tax incentive was available for employers who provided effective learning experiences for the student.

F. Training Agreement

There was consensus on the fact that written training agreements should be used that would specify the conditions of the program and of training. This should be distinct and separate from the traveling plan, even though both are important. The written agreement should be approved by school personnel, the employer, the student, and the parents. The written agreement would help to establish the parameters within which the school and the employer would function. All parties should understand how the program operates and should agree that they are willing to carry out their individual responsibilities. In this way, the training agreement serves as the "road map" for efficient program operation.

G. Training Plans

- 1. Training plans were mentioned many times as a way to insure that education was being received on the job. Employers are highly in favor of this procedure as it helps broaden knowledge, expand horizons and develop long-range career objectives. To be effective, it should be constructed in a step-by-step procedure and would specifically outline the duties, tasks, and responsibilities of the student-trainee. The training plan should include an outline of the work experiences as well as an outline of study assignments in school. The training plan serves as a guide for the training sponsor and the student in planning and carrying forth his total cooperative experience. The coordinator and training sponsor should jointly develop the training plan.
- 2. There was general agreement that job rotation was desirable during the training period. Benefits are derived by both employers and students.
 - a. Employer benefits: By rotating students, they become more knowledgeable about the many facets of business, in turn making more valuable employees. A method of rotation tends to sustain student interest and the higher the interest level, the more the student will learn. A system of rotation tends to reduce employee turnover because the student is more likely to find stimulation in the business and will stay on the job longer.
 - b. Student benefits: The more experience obtained by the student, the more he will learn and develop marketable skills. By experiencing many positions within a business the student will find what type of tasks he enjoys and from which he receives satisfaction. The student will have the opportunity to learn more about himself and will have a broader base from which to intelligently select a career. The student will retain his interest level at a high plane knowing he will receive numerous experiences.

H. Role of the Training Sponsor

The duties of a training sponsor were discussed and the following points were suggested:

1. Plan a work schedule and develop appropriate training plans.
2. Work with the coordinator to assist the student-trainee in his personal adjustment and adjusting to work.
3. Provide the student-trainee with the necessary work materials and work environment in which to perform.
4. Serve as an appropriate role-model for the student-trainee in a work situation.
5. Serve as the "Teacher" at the place of employment.
6. Evaluate and appraise the work of the student-trainee in terms of his performance of established competencies.
7. Provide a flexible enough situation so that the student-trainee tries a different task and progresses upward on the work ladder.

It was also suggested that the above points could serve as criteria for locating and selecting appropriate training sponsors.

I. Conditions of Employment

Factors determining the duration of employment, period of employment, time of day, and period of alternation between school and employment would include the following:

1. Duration of employment:

This would depend on the skills to be learned and the objectives of the program. Skills such as those of waitress would probably require a short time to learn, while it may take considerably longer to learn machinist's skills. Objectives to be considered are:

- a. The educational experiences available to the student.
- b. Amount of credit to be awarded.
- c. The number of hours per week required to earn credit.
- d. The degree of flexibility desired, such as more in-school training during the early stages of the program followed by more intensive job training toward the end of the assignment.

2. Period of employment:

Factors to be considered are:

- a. Seasonal needs of employers.
- b. Year of school, e.g. junior, senior, etc.
- c. When the best training is available.
- d. Amount of flexibility desired.

3. Time of Day:

Training experiences should be during the time of day when the needed experiences are available in the training station. However, care should be taken to abide by all state and federal labor laws pertaining to the time of day for employment of minors.

4. Period of alternation between job and school:
Concurrent related instruction is desirable but should not be mandatory as many restrictions are imposed by this procedure. School districts should be encouraged to consider periods of alternation which have not been commonly used in the past, such as one or more weeks on the job followed by an equal amount of time in school. It may be possible to consider evening school classes for high school students so students could engage in training experiences during the day. Summer periods could also be utilized for job experiences for which the student would receive credit.

J. Credit for On-the-Job Training

Credit should be given for the on-the-job training as well as the related instruction. The credit should be based on the value of what is received but should be consistent with all the cooperative education programs within the school. The number of units of credit should also be consistent with the other programs of instruction within the school in terms of time and educational value. Letter or number grades are assigned for on-the-job learning in terms of individual progress with written records explaining the achievement of the student in specified job learnings.

K. Information furnished the employer

Employers should possess certain kinds of information about the students they employ. The task forces felt the following kinds of information were important:

1. The kinds of basic skills possessed by the student-trainee.
2. Student attendance and tardiness record.
3. The problem-solving ability of the student.
4. Whether or not the student will remain as a permanent employee.
5. The career goal of the student.
6. The student's potential for developing pertinent skills.
7. The evident strengths and weaknesses of the student.
8. In some cases, family backgrounds are important.
9. Achievement records and grades in previous courses.
10. Future plans of the student, work or educational.
11. The amount of wages expected by the student.

9.23 IDENTIFICATION OF JOBS

A. Manpower Planning Arrangements

1. Manpower Planning Committees:

In some areas and states there are cooperative manpower planning systems which coordinate the activities of many agencies seeking to help individuals prepare for work. The objective of those systems is to avoid duplication of effort and to provide programs to serve the needs of all individuals. There is general agreement that in order to have an entire community, area, or state supporting cooperative education there must be involvement of representatives from all related agencies and programs in planning, promoting, and implementing cooperative education programs.

2. Central Information Gathering and Dissemination

- a. A community directory of vocational education opportunities should be distributed.
- b. A community public relations program for promoting the various occupational education programs within and outside of the schools should be operated. (Presently to obtain information, one must check with a number of agencies.)

3. Public Hearings:

It is recommended that public hearings be held on state and possibly local plans in order that community interests are expressed and reflected in the plans adopted.

B. Advisory Committees

1. Potential Supporting Community Groups:

States should be encouraged to develop guidelines for working with special community groups such as:

- a. Community Action Agencies
- b. The Urban League
- c. Labor Unions
- d. Community Centers for Minority Groups
- e. Employment Services
- f. Service Clubs
- g. League of Women Voters
- h. Trade Associations
- i. Chamber of Commerce
- j. Welfare Agencies
- k. Model Cities
- l. Farm Cooperatives
- m. Youth Organizations

2. Composition and Role of State Advisory Committee:

The task forces generally agreed that state advisory councils should include representatives from management, employees, labor groups, and educators who are familiar with manpower problems and are knowledgeable about the kinds of educational programs that would be effective in filling manpower needs. These persons would be helpful in:

- a. Providing better communications on the state level to insure maximum involvement of all parties concerned.
- b. Clarifying the roles of labor and management in terms of the kinds of contributions that can be made by both groups.
- c. Encouraging schools to organize and operate cooperative vocational education programs.
- d. Suggesting state legislation that would be appropriate in organizing and administering programs.
- e. Assisting in the development of curricula.
- f. Suggesting the criteria, standards, and methods for evaluating comparative vocational education programs.
- g. Working with employers to insure continuous employment for students while they are enrolled in the program.
- h. Working with labor groups (unions) to provide an appropriate dues structure for bona fide cooperative trainees.
- i. Providing guidance and assistance to local advisory committees.
- j. Making certain that all state and federal wage and hour laws, and other pertinent legislation is complied with by the parties concerned.
- k. Serving as a public relations initiating group at the state level.

3. Composition and Role of Local Advisory Committees

It was recommended that local advisory committees be formed that would be composed of representatives from employers, employees, training sponsors, labor groups, and educators who are familiar with manpower problems and are knowledgeable about the kinds of educational programs that would be effective in filling manpower needs at the local level, as well as on a broader geographic scale. These persons would be helpful in:

- a. Providing communications at the local level regarding the operation of programs.
- b. Educating training sponsors as to how they fit into the program.
- c. Assisting in development of training stations.
- d. Evaluating the effectiveness of cooperative vocational education programs.
- e. Assisting in organizing and operating cooperative vocational education programs.
- f. Serving as a liaison group between the school and the business community.
- g. Providing instructional help through resource speakers, trade materials, occupational information, etc.
- h. Working with labor and management groups at the local level to insure maximum involvement and cooperation.
- i. Serving as a liaison group between the local committee and the state advisory council.
- j. Assisting in determining the criteria and standards for measuring job performance of the student-trainee at the training station.

- k. Providing public relations activity at the local level.
- l. Assisting in solving problems regarding the program that develop at the local level.

C. Employment Agencies

- 1. **Consultation on Training Opportunities:**
The local employment service should be consulted regarding employment and training opportunity information for the local community, state, and the nation as a whole.
- 2. **Areas of Cooperation:**
Employment service personnel should be informed on the organization of cooperative vocational education programs and the values to be gained by employers and students. They should be encouraged to work with the teacher-coordinator on placement, identifying potential training stations, referral of unemployed youth to the cooperative education programs, and exchange of information relative to serving the needs of young workers. Their publications and public information service might include cooperative vocational education information.

D. Labor Groups

Program Supporting Activities

Representatives from labor can be of help in organizing and operating cooperative vocational education programs in the following ways:

- a. Serving on state and local advisory committees.
- b. Helping in setting standards for student-trainees.
- c. Helping to solve lay-off problems that often plague student-trainees.
- d. Assisting in job rotation and the development of training plans.
- e. Aid in lobbying for legislation affecting cooperative education.
- f. Provide speakers and other instructional materials
- g. Evaluate on-the-job performance.
- h. Provide and train effective training sponsors.
- i. Help identify available work stations.
- j. Assist in organizing and planning cooperative programs.
- k. Familiarizing themselves with the objectives and methods of operating cooperative programs, and communicating this to management and labor forces to foster a greater amount of cooperation.
- l. Communicating state and national trends in their specific occupational category.
- m. Cooperating with the school districts in providing follow-up data on student-trainees as they compare to full-time workers.
- n. Helping to recruit minorities and encouraging their participation.

E. Government Agencies

Responsibility for Contacts with Government Agencies:
Governmental agencies at local, state, and federal levels should be informed of the availability of cooperative vocational education programs for training public service workers. These agencies should be contacted by teacher-coordinators for participation in cooperative vocational education programs.

F. Social Service Agencies

Potential Training Opportunities for Disadvantaged Students
The social service agencies and specially funded projects and programs designed to help the disadvantaged in the community may offer opportunities for training disadvantaged youth to work in these programs, provided training is available and the students have interests and abilities to train for occupations in this type of work.

9.24 ADDITIONAL COSTS TO EMPLOYERS

A. Policies

1. Consensus was obtained on the fact that employers should be reimbursed only for added costs which the employer has not assumed previously for training regular employees. For example, when employer may not be able to schedule all of the necessary processes or experiences of a career oriented on-the-job training plan in a regular job assignment without special accommodations. If such accommodations entail added costs, this might be an area of legitimate reimbursement to the employer. Added costs should be identified prior to the employment of the student-trainee and should be outlined in the training agreement. The employer should be paid only if it is apparent that without reimbursement he will not provide quality training. These funds should not be used to train students who displace regular workers.
2. Handling disadvantaged students may result in added costs as these students may need instant pay or other incentives to indicate success. They may also require specialized kinds of help and instruction above what is required to train typical employees or the usual kinds of cooperative students. An employer may be interested in employing a student with subminimum skills because he may 1) find it difficult to locate potential employees, 2) desire to try a pilot arrangement of cooperative education to determine if this method could help him solve some of his training and employee problems, and 3) feel pressure from civic leaders to do something about helping the disadvantaged.
3. The types of added costs incurred may be the following:
 - a. Additional time required of training sponsors.
 - b. Additional secretarial help required to keep and maintain records.

- c. Additional special instructional materials or equipment.
- d. Additional tax expense such as the unemployment tax that the employer would not be responsible for if the student-trainee had not been hired.
- e. Special training sessions for students by personnel department or other executives and specialists.

B. Procedures

- 1. Employers should be reimbursed through the local school district at the end of the school year in which the costs were incurred. A report would have to be made that included the nature of the costs, the amount of such costs, and the amount to be reimbursed. It was the feeling of the group that only in rare instances would an employer be reimbursed for additional costs. This feature should not be used merely as an incentive to place a student in a training station.
- 2. There should be a training agreement between the local agency (school) and the cooperating employer that clearly specifies the added costs for employing a student-trainee, as well as the wages he is to be paid, and also indicate:
 - a. The cost factors that should be applied, such as additional training sponsor time, additional secretarial help, etc.
 - b. The amount of funds to be paid for each cost factor, as well as the total funds to be paid to each employer for added costs.
 - c. The duration of the reimbursement period, e.g. three months, 10 weeks, etc. It was felt that reimbursement should cease when the student-trainee carries his share of the work load, that is he is productive.

9.26 PARTICIPATION OF STUDENTS IN NON-PROFIT PRIVATE SCHOOLS

A. Private School Contact

Most private schools have government project directors at local, regional, or state levels who should be responsible for working out the arrangements whereby cooperative vocational education programs in local non-profit private schools might be funded under Part G. The individual in the private school who is the designated director or supervisor of government projects should be a member of the local advisory committee.

B. Coordinator Responsibility

The supervisor or coordinator of cooperative vocational education in a local school district should be available to private school systems to serve in an advisory capacity and to assist private schools in developing programs.

C. Administrator Responsibility

The local public school official responsible for administration of vocational education should be aware of the administrative structure, the curricula, and the needs for vocational programs in the non-profit private schools.

D. Participation

Where the needs for occupational education are not adequately met, areas of high drop-out rates and youth unemployment, consideration should be given to providing programs whereby students in private schools could be allowed to participate in the cooperative education public school programs.

9.28 EVALUATION AND FOLLOW-UP PROCEDURES

A. Evaluation of Student-Trainees

Both the school and the employer have the responsibility for evaluating the on-the-job performance of the student-trainee. In most cases, this is a joint venture between the coordinator and the training sponsor. A student should be evaluated according to the newly acquired experiences and to what level this new acquisition has been above and beyond that which he possessed before. Some considerations for evaluation are:

1. Skill acquirement and improvement as measured by the duties and tasks outlined in the training plan.
2. The student's ability to work with other individuals.
3. The student's response to supervision.
4. Personal development and adjustment.
5. Development of maturity and self-confidence.
6. Ability to handle the unexpected as well as the expected.
7. Comparing the student's performance with that of a fully trained worker or other beginning workers.
8. The growth rate of the student in terms of the progress he has made.
9. How well the student meets the expectations of the employer.
10. How well the student meets his own expectations and satisfactions.
11. The judgment of the student in making decisions.
12. Amount of initiative exhibited in looking for other things to be done.
13. Amount of information and help required before the student can understand and do what needs to be done.
14. Ability to grasp situations in which he has had little training or exposure.
15. Ability to solve the day to-day problems that keep a business going.

B. Standards for Disadvantaged

It is generally agreed that disadvantaged students who have cultural habits of dress, grooming, language, etc., which are unacceptable to many employers, should be expected to adapt more acceptable patterns and given special assistance in making these changes. This may be a slow process and may require that the participating employer and the school coordinator accept the individual student as he is in the beginning and then work for change. Employers should not be expected to continue the employment of students who do not maintain the standards required of other employees, after spending a reasonable length of time and effort to allow the students to learn new patterns. Evaluation of students should be in terms of progress toward achieving the training objectives.

C. Employer's Evaluation of Programs

Employers evaluate the effectiveness of cooperative vocational education programs in several ways, some of which include:

1. The retention rate with a particular employer following the student's completion of the program.
2. The retention and progress after five years, ten years, etc.
3. The type of student placed on the job.
4. Widespread impact of the program on the community.
5. The methods and procedures for developing training plans and training agreements.
6. The adequacy of preparing the training sponsor.
7. The kind of related instruction received in school.
8. The effectiveness of communications channels between the school and the employer.
9. The number of problems they have with the students and how these problems are resolved.
10. The successes and satisfactions of the students while enrolled in the program.

D. Follow-Up Information

All coordinators and related vocational class-teachers should be aware of the final results regarding placement of students in the occupations for which trained or in related occupations. They should conduct follow-up studies of former students on the job to obtain suggestions on what could be improved, retained, or modified in the program. They should be aware of students who are unemployed and looking for work, and help them secure additional training and/or placement.

D. State Reports

A uniform statewide system for reporting information on local programs should be established. A system for accounting for pupil enrollment should take into account the number of students served and the number of hours of classroom instruction and on-the-job training they received.

9.32 ANCILLARY SERVICES AND ACTIVITIES

A. State Supervision of Cooperative Vocational Education Programs

Consideration should be given to establishing a state level supervisor or coordinator of cooperative vocational education programs. Some of the major responsibilities of this position might be:

1. Assist in developing new programs.
2. Coordinate activities of cooperative vocational education programs supervised by the different services.
3. Establish standards for evaluation of programs.
4. Coordinate research and development activities.
5. Provide information to the public and to special groups and promote cooperative vocational education on the state level.
6. Supervise contractual actions relating to non-profit private schools.
7. Supervise reimbursement of costs to employers and to students.
8. Direct the review of applications for programs.
9. Represent cooperative vocational education programs at the state level.

B. Evaluation

The following kinds of information should be considered in evaluating programs:

1. Number of students served by a program.
2. Number and distribution of occupations for which cooperative education was offered.
3. Follow-up data following graduation and at three to five year intervals.
 - a. Retention in same job
 - b. Employment in related job
 - c. Enrollment in additional education
 - d. Unemployed
 - e. Service, and other
4. Impact of the program on drop-out and youth unemployment rates.
5. Objective data (outcomes) derived from experimental or quasi-experimental research.
6. Comparison of labor market information and the number being trained in specific occupational fields.

C. Training of Teacher Coordinators

The matter of teacher-coordinators effectiveness was discussed as it pertained to training received through pre-service or in-service teacher education. The following are some statements regarding this topic:

1. There needs to be flexibility in certification in terms of occupational experience for the various job clusters. Yet, this experience should be extensive so the coordinator understands the requirements, demands, and atmosphere of work situations of students. This would help him communicate effectively with students and employers.
2. Advisory committees may be utilized to determine the criteria for measuring the effectiveness of coordinators, and then use this information in structuring teacher-education programs.
3. The coordinator should be able to help the student learn a job with the assistance of the training sponsor.
4. Effectiveness can be improved by teaching adult vocational education classes.
5. Major emphasis should be given to techniques for selecting and guiding students, and to the selection of training stations. Along with this would be the ability to develop training agreements and training plans.
6. It may be possible to establish a teacher-training program for all cooperative vocational education programs. The principles are the same, the emphasis in specific fields would be different. Team teaching could be used for the latter.
7. The coordinator should be exposed to early participation in professional and trade associations related to his area. In this way he can keep abreast of current trends and learn from his colleagues and businessmen.
8. He should participate in in-service workshops, conferences, and institutes to keep up-to-date.
9. Certification requirements bear examination and consideration for revision in terms of differentiated staffing and performance criteria rather than educational and occupational experience requirements.

D. Development of Curriculum Materials

1. **Need for Individual Materials**
In order to serve the diversity of occupational interests and to provide related instruction relevant to the needs of individual students, individual materials are needed. Independent study materials will make it possible to provide many different patterns of related instruction tailored to the needs and interests of individual students.
2. **State Level Curriculum Specialist:**
Consideration should be given to employing specialists at the state level to develop curriculum materials for cooperative vocational education programs.

DISCRIMINATION PROHIBITED --- Title VI of the Civil Rights Act of 1964 states:

"No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subject to discrimination under any program or activity receiving Federal Financial assistance."

Therefore the National Conference on Cooperative Education, like every program or activity receiving financial assistance from the Department of Health, Education, and Welfare, must be operated in compliance with this law.

MAJOR PAPERS
PRESENTED AT
THE NATIONAL CONFERENCE
ON
COOPERATIVE VOCATIONAL EDUCATION
February 26 - 28, 1969

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The U.S. Office of Education

Remarks
of
Malcolm Moos
President, University of Minnesota
Before the
National Conference on Cooperative Vocational Education
Minneapolis, Minnesota
February 26, 1969

It is a great personal pleasure to be asked to greet all of you and to welcome you on behalf of the University of Minnesota to this National Conference on Cooperative Vocational Education. It is gratifying to know that so many segments of education, business and industry, government, and labor from all of the 50 states are represented here.

The particular pleasure associated with this occasion derives from my long-standing concern for involvement in the community. From the beginning of my tenure as President of the University of Minnesota I have, as many of you know, struggled to establish the concept of the communiversity--the notion of intricate involvement and deep commitment of the University with the larger community.

The whole concept of cooperative vocational education is based on the notion of a communiversity. As we at the University of Minnesota have turned our attention and efforts toward involvement in the larger community, we have found that the roads of interaction have already been well traveled by many of our colleagues in the cooperative vocational fields.

As we have argued that the community and the schools in that community need to be working more closely with institutions of higher education, we have found patterns of cooperation already existing in the vocational-technical fields.

As we have developed the notion that education is everybody's business and that the various elements in the community must have a strong voice in the development of educational programs, we have found a high degree of commitment and involvement already existing in labor, industry, and business.

When we have sought to demonstrate that community agencies did indeed make a valuable contribution to the on-going life of sound educational programs, we have turned often to vocational programs for our evidence.

This has been especially true when we have tried to demonstrate how important it is that all segments of the community participate in making decisions about the important matters of education.

It is not unusual, then, as we turn our attention toward involving personnel from so-called academic programs, that we find outstanding examples of supposed new ideas have already been in operation in cooperative vocational-technical programs for a long time.

For example, much of the thrust of recent federal legislation has been aimed at the development of cooperation itself among the many agencies involved in education; at the same time cooperation is an item already taken for granted in vocational education.

As we seek to breathe new life into the field of education in a number of ways we find that cooperative vocational programs were trail blazers decades ago.

None of this is to suggest that you should rest on your laurels, as the challenge to you is as great now as it ever was. The phenomenal growth in technical fields suggests that we will need to continue to prepare increasingly large numbers of well-equipped workers with not only practical skills but also skills in communication and human relations.

Your success in continuing education, based on your experience with retraining programs, must continue to give us new insights in learning how to learn, which is the most important skill that any of us ever learns.

National Conference on Cooperative Vocational
Education Programs

OPENING REMARKS

By
Edwin L. Nelson, Senior Program Officer
Work Experience Programs
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In passing the Vocational Education Amendments of 1968, Congress has given this nation a new charter for vocational education. It is, in fact, a self-contained Act and, in reality, a single piece of vocational education legislation since all authorizations under previous Acts expire on June 30 of this year.

In recognition of the complex social and economic problems for which solutions are being sought, Congress, in its wisdom, has set forth certain priorities or emphases in the new legislation to which society and its institutions are asked to respond. Tracking the legislation, these priorities are:

- 1) programs for the disadvantaged - Part B
- 2) post-secondary vocational education - Part E
- 3) programs for the handicapped - Part B
- 4) research and training in vocational education - Part C
- 5) exemplary programs and projects - Part D
- 6) residential vocational education schools - Part E
- 7) consumer and homemaking education - Part F
- 8) cooperative vocational education programs - Part G
- 9) work-study programs - Part H
- 10) curriculum development - Part I

In light of these priorities and the need for comprehensive planning for the implementation of the legislation, the Office of Education has allocated a part of its resources to conduct, under contract, a series of national conferences--each one dealing with a different aspect of the Act. This conference on cooperative education is one of nine conferences to be held. All of the conferences have been planned to bring together a cross-section of representatives from education, business and industry, labor, government agencies, and other groups who can lend their expertise and make recommendations to the States in implementing the provisions in the Act.

The thought expressed at these conferences will be summarized for presentation and further deliberation during nine regional clinics scheduled in April. At this point, the States will have information that will assist them in preparing their new State plans.

The final product following each conference and the nine clinics will be a publication that will serve as a guide for the decision-makers and program personnel having responsibilities for program development.

The primary purpose of this conference is to provide guidelines for the development of programs using cooperative work-study arrangements. It is quite natural for those experienced in cooperative education to recognize the merits of involving all the parties in the school-work partnership in setting forth such guidelines.

In implementing cooperative education, we look to the resources available, principally the legislation; we consider the population to be served; we examine the role of the school; we look to the employers who provide the training facilities; we seek the assistance of labor and other employee representatives; and we encourage understanding and support from the community at large.

This conference has been so structured as to give attention to each of these principal components and their role in achieving a broader application of cooperative training in vocational education. The six major presentations will reflect the point of view of an individual representative of each group. Each has been encouraged to respond to some common topics. This planned duplication will help us to move confidently toward consensus on several matters. We look forward to their interpretations and recommendations. Each presentation will be supported by a panel which will provide examples, report on research findings, react to the presentation, offer additional information, or present a point of view on a selected operational matter. The discussion groups that follow will allow additional opportunities for further analysis and reaction of the platform topics as well as consideration of related questions submitted by the conferees.

Everyone attending the conference has a special focus for his expertise in cooperative education. Your participation was sought because of the

contributions you could make. We wish to assure all of you that we shall respect your opinions and recommendations because we know they stem from your experience, knowledge, and beliefs. On some matters, we hope to achieve consensus; on others, we know different points of view will be expressed and these may be offered as alternatives.

When plans were made for this conference, it became immediately evident that cooperative education, as a technique for applying instruction, would not be limited to programs supported under Part G of the Act but would also apply to the basic State plan programs under Part B. Throughout this conference, therefore, references will be made to cooperative programs under Part B and Part G. We wish to bring this to your attention at the outset so that you may be alerted to the fact that cooperative education is not limited to one source of funding in the Act. Cooperative education, of course, is no stranger to vocational education. It has been operating successfully for many years and has been used extensively by distributive education, trade and industrial education, office education, and more recently in agriculture, health occupations, public service occupations, and wage-earning home economics. The current effort, now identified with Part B, will remain within the framework of maintaining, extending and improving existing vocational programs. The emphasis given in Part G is to extend cooperative training opportunities and to allow the expenditures of funds for certain new purposes not applicable under the basic State plan program. While the focal point of this conference will be on Part G, we shall examine the resources of the entire Act in implementing cooperative education.

The basic differences between Part B and Part G in conducting cooperative programs are these:

- 1) Vocational programs, using cooperative arrangements under Part B, must be matched with State or local funds.
- 2) Cooperative programs under Part G may be assisted to the extent of 100 per cent of expenditures.
- 3) Part B is a continuing authorization; Part G is a four-year authorization. (By way of interest, the authorization for 1970 is \$35,000,000; however, the President's budget for 1970 provides for an appropriation of \$14,000,000).

- 4) Under Part B, cooperative programs are operated without these limitations.
- 5) Funds available under both Parts may be used for program operation and ancillary services. Under Part G, however, funds may be used to reimburse employers for added training costs and to pay for unusual costs of students.
- 6) There appears to be greater flexibility in designating work periods for students under Part G.

There is gathered here a most distinguished and unique audience. Hopefully, by listening to each other, by sharing our knowledges and concerns with one another, we can answer such questions as:

- 1) How do we interpret the standards of vocational cooperative education when we are engaged in a "selecting-in" process instead of a "selecting-out" process?
- 2) What should be our approach in making cooperative programs readily available in rural areas? In urban centers?
- 3) Under what conditions should employers be compensated for added training costs?
- 4) For whom should cooperative training opportunities be made available?
- 5) How do we respond to those training opportunities in a community when it is apparent that a specific vocational curriculum in school is either impractical or not available?
- 6) What criteria should be followed in funding programs under Part G?

Cooperative education has attracted the attention of Congress, and other decision-makers because of its pattern of operation--that is, the combination of school and work--theory and practice--which provides youth with a dependable bridge from school to full-time employment or advanced study. Highlighting a method of instruction in legislation is rather unique, but it is a matter of record that Congress values the outcomes of cooperative education and wishes to see these values extended to more of the nation's youth.

During this conference we will search the intent of Congress; we will assess State and local capabilities; we will look to our resources and needed appropriations, much of our deliberations will involve an examination of the relationship between cooperative programs now in operation and the new interpretations which may be applied in creating new programs in environments which have proved difficult in the past,

and of procedures aimed at responding to a wider range of needs evident among youth today. This will call for a greater commitment to the expressed and unexpressed needs of youth with less concern for established, and sometimes inappropriate, patterns of program operation.

This is our challenge at this conference--to find new ways to interpret and implement cooperative education so that more of the nation's youth can benefit from what has been called by the National Advisory Council on Vocational Education the best program we have in vocational education.

Remarks
of
The Honorable Roman C. Pucinski
Congressional Representative from the State of Illinois
concerning
"Congressional Expectations of Cooperative Vocational Education"
Before the
National Conference on Cooperative Vocational Education
Minneapolis, Minnesota
February 26, 1969

Across the country, colleges and universities are being thrown into chaos by student unrest.

College students are rebelling today to lend credence to Emerson's century-old dictum that one of the benefits of a college education is to show the boy its little avail.

This dissatisfaction with our educational system has now seeped into our high schools. In White Plains, New York; in Washington, D.C.; and here in the Midwest, youths are challenging their schools with telling cries of irrelevancy. Whether these students want Negro history courses or a say in the selection of teachers, their unspoken objective is to make their school experience relevant to their lives.

Although we cannot condone their tactics we must recognize that our schools have too long neglected the world outside the red brick walls. A student does not shed the affects of the outside world when he walks into the classroom. And a teacher, only at the peril of irrelevancy, ignores the other nineteen hours of the day.

Cooperative education can help to break down these artificial barriers between school and life. By blending a meaningful job experience with related educational courses, cooperative programs are ideally suited to bring relevancy to our schools.

This fusing of job and school can remedy the effects of a grave fault of many educators--the belief that schools are meant only to mold cultured men for evenings and weekends. The function of our schools cannot be so limited. Our schools also owe their students the duty of making them employable for decent and gratifying jobs.

And as essayist John Ruskin said in the early part of this century, "In order that people may be happy in their work, three things are needed: They must be fit for it, they must not do too much of it, and they must have a feeling of success in it."

Cooperative education is a superb device for the first and the third of these essentials: career preparation and the development of self-confidence. I believe that we can safely leave the second essential--not too much work--to human nature.

Cooperative education simply recognizes that certain aspects of career preparation and personal development cannot be taught in the classroom. A girl whose training is limited to looking at X-rays will not make a good dental hygienist. Nor will a boy who just reads a book by Conrad Hilton necessarily make a good hotel manager.

This value of cooperative education is rapidly becoming known. Today it is an integral part of the curriculum at more than one hundred and fifteen colleges and universities and at more than three thousand high schools and junior colleges.

Noteworthy among these schools are the nationally acclaimed programs at Northeastern in Boston, Drexel in Philadelphia, and Antioch in Ohio. These four year colleges offer the traditional cooperative programs which are now eligible for funds under the Higher Education Act.

Among junior colleges, the Borough of Manhattan Community College offers an exciting program which places minority and disadvantaged youths in jobs with the city's advertising agencies. A very sensible feature of the Manhattan program is the use of an advisory council which serves as a bridge between the school and the business community. And Chicago's City College is developing a skill center to bridge the needs of the community.

The Patterson High School in Dayton, Ohio, offers an exemplary high school program. Students spend two weeks in school and two weeks on the job. This program, like many others around the country, has encouraged many youths to go on to college or to pursue advanced post-secondary training.

Although these programs are indicative of the recognition now achieved by cooperative education, less than fifteen percent of the nation's high schools and junior colleges offer such programs.

We must double, or even triple, this percentage during the next two years.

And I predict that because of the Vocational Education Amendments of 1968 a large percentage of this increased enrollment will come from vocational education.

As Chairman of the General Subcommittee on Education, I conducted twenty-six days of hearings on vocational education last year. And during those extensive hearings my belief in the need for cooperative programs in occupational education was reinforced.

My subcommittee learned from the National Advisory Council on Vocational Education that: "Cooperative education had the best record of all vocational education programs in terms of the preparation of students placed in the occupations for which they were trained."

The Advisory Council went on to say that cooperative programs have shown the highest rate of return on investment of any type of vocational program.

Yet my subcommittee found that less than five percent of vocational students were in these programs.

This recognized success of cooperative education and yet the low number of available programs were the reasons why we wrote a cooperative section into the Vocational Education Amendments of 1968.

Congress earmarked these Federal funds as an inducement to school districts to initiate or expand vocational cooperative programs, especially in the new and emerging job fields.

But before I describe the principal provisions of this section, let me emphasize that in creating a separate authorization Congress did not intend to preclude funding of such programs under the general authorization of funds.

In other words, under the Amendments school districts may use both these earmarked funds and the general Federal funds for cooperative programs.

We only earmarked these special funds after the evidence clearly showed that cooperative programs were not presently receiving adequate support. However, we hope that as the value of these programs becomes known administrators will also support them from general funds.

As you know, Part G of the Vocational Education Amendments is the vocational cooperative work-study section. Under Part G, Federal funds

may be used for four purposes: for training and support of coordinators, for related instruction, for added costs to the employer, and for certain services to the students.

I would like to address myself briefly to each of these four purposes.

The first and most important use of Federal funds is for the training and salaries of coordinators. If there are not good coordinators, no cooperative program will be a real success. They serve as the vital link between the student's job and his school experience.

But good coordinators can also serve as catalysts for change, both within the school and between the school and the business community. They can help to break down the walls of hostility and snobbiness which too often exist between vocational and academic educators.

When I see this frequent animosity, I think of Sir Richard Greenfeld's saying: "Mankind is slowly learning that because two men differ, neither need be wicked."

I must say, though, I am more impressed with the willingness of vocational educators to change than I am with the willingness of academic educators to recognize the value of occupational education.

Nevertheless, coordinators can help to breach this wall between vocational and academic education. They can design programs which are attractive to academic students, especially cooperative jobs in semi-professional and other white collar areas.

All too often, vocational education has the exclusive image of training for lathe operating. Although there is obviously nothing wrong with such training, nor with any other training in manufacturing, vocational educators must recognize that the number of jobs in this sector of our economy is steadily declining. And since jobs in the semi-professional and service areas are rapidly increasing, it is our hope that cooperative programs will help vocational educators to change their curricula to provide training for these new occupations.

In addition to furnishing the students with attractive jobs and relevant curricula, coordinators must also serve as the school's bridge to the business community.

A good coordinator must cultivate businessmen's interest in the school and especially in its vocational courses.

I believe that businessmen and other community leaders should have more of an input into the operation of our schools.

Naturally, I do not mean that businessmen should dictate the curriculum or interfere in ordinary administration. But I do advocate that through such devices as advisory councils on cooperative programs, businessmen, school administrators, and teachers can be drawn closer together in their common concern: the education of our young people.

The second purpose for which Federal funds can be used is for "instruction related to the work experience."

Since only limited funds were authorized, Congress intended that this money be used for instruction which is directly related to the job experience, and not for general vocational or academic instruction.

However, we hope that this provision does not somehow become another brick in the wall separating vocational and academic education.

The third purpose for which Federal funds may be used is for "reimbursements to employers when necessary for certain added expenses incurred in providing on the job training through work experience."

By removing these barriers of additional expense, Congress intended to encourage employers to open their offices and factories to cooperative students.

In other words, an employer should not have to assume the costs of training a cooperative student over and above the costs of training an ordinary employee.

But the employer must do his part, namely pay the student the full wage of an ordinary employee and provide him with a job where he can advance. We did not intend providing employers with cheap labor in dead-end jobs under the guise of cooperative education.

The fourth and last purpose for which Federal funds may be used is for certain services which the individual students could not reasonably be expected to assume while pursuing a cooperative program.

These services could include the purchase of the paraphenalia required on the job and which the employer does not provide, or the car-fare to the job, if the distances are great.

Congress firmly believes that the career preparation and self-confidence resulting from cooperative education are vital to many students, and consequently, did not want these minor economic obstacles to prevent students from participating.

Let me add a last word on one other point.

In the law, we have stated that this program is to provide "opportunities which might not otherwise be available." We meant this to be interpreted two ways: in people and jobs.

We envisioned this program as another of the means to break down the doors of exclusion for disadvantaged youth. Often, these youths--have no opportunity to learn the personal traits needed for jobs.

If they live in a sub-culture where there are no alarm clocks and numbers--running is the admired vocation, they must be given the opportunity to see what is required on a regular job--to learn the importance of punctuality and the value of hard work.

So we hope that cooperative programs where possible will involve disadvantaged youths.

We also meant for this phrase to emphasize the innovative character of this section. Part G can be a "cutting edge" for change in vocational education by extending vocational cooperative programs into new and emerging job fields.

In conclusion, let me remind you of a statement made by Marvin Feldman in Making Education Relevant. "We can no longer tolerate an educational system 1) that ignores the world of work, 2) where occupational studies are considered inferior to general studies, and 3) where youngsters in vocational tracks do not receive the training necessary for entry into college and those in college preparatory tracks are denied a vocational experience which relates their learning to reality."

As Feldman so well states, we can no longer indulge such a system.

The purpose of the cooperative education section and of all the Vocational Education Amendments is to begin the reconciliation between the work world and the school and between the academic and vocational curricula.

This reconciliation has as its goal a balanced education for every American youngster.

Remarks
of
Dr. Henry Borow
Professor, University of Minnesota
concerning
"Potential Contributions of Cooperative Education
to the Student's Vocational Development"
Before the
National Conference on Cooperative Vocational Education
Minneapolis, Minnesota
February 26, 1969

Adam, it is said, when he saw Eve for the first time, broke a lengthy and awkward silence with the utterance, "We are living in a time of unprecedented change." Apocryphal or no, it is a tale which records a timeless observation that has become today's commonest platitude. The contemplation of a social order in headlong transformation is everyone's pastime. We proclaim the reality of change with a somber demeanor which does not quite conceal the undercurrent of fascination that the very notion of a new and as yet unseen world produces in us. In formal discourse at conferences such as this one, it is à la mode to acknowledge the logarithmic rate of change and to dwell upon the real or imagined consequences for us all--consequences usually described in such mind-blowing terms as "pervasive," "staggering," "shattering," "inconceivable," and the like.

What appears to escape us is that our facile profession of belief in the inevitability of radical change and in the need to plan an adaptive society to accommodate it may be a colossal self-deception. We may have here a textbook example of intellectualization, a psychoanalytic mechanism by which we mitigate the threat to our accustomed beliefs and practices simply by talking endlessly about the problem. That way we exhaust our anxiety about the prospect of having to alter our ways without converting the symbolism into overt acts. It is patent that educators, like the representatives of other established institutional hierarchies, can speak heroically about the urgency and wisdom of change, all the while giving ground only grudgingly on their cherished assumptions, values, and operating modes from the past. In fact, some distinguished scholars have recently busied themselves with the phenomenon of cultural lag within our schools. How is it that the bright promise of

educational innovation beginning, say, with John Dewey and extending through such ripples on the constant waters as the Dalton Plan, the Winnetka Plan, life adjustment education, and, more recently, programmed instruction and the systems approach to education, has been so very slow in its attainment? With depressing frequency, prototype curricula, demonstration projects, and exemplary and pilot training programs are launched, presumably found useful, abundantly documented in convention papers, books and journal articles, publicized with high optimism, and, subsequently, fall by the wayside without having made perceptible impact on the national strategy of education.

I do not, of course, intend to exempt vocational education from this general charge since we have hardly witnessed anything remotely resembling a revolution in this area. Despite an accelerated pace of experimentation occasioned by the Vocational Education Act of 1963 and the subsequent related instrumentalities created by the Congress, our sober assessment holds. When, in preparing for this session, I turned the problem over in my mind, I was taken by what I regard as an impressive correspondence between the dynamics of resistance to rapid accommodation within vocational education and that within my own field of counseling. Two years ago, I attempted a brief analysis of the torpor and inertia which have afflicted school counseling at a time when it should be breaking with its past. In working through this exercise, I found the sociological approach to the treatment of rigidity within the professions quite helpful. Since like school counseling and other professions, vocational education possesses a formal structure and a network of established conventions, I regard my earlier interpretation of slowness-to-change within counseling to hold valid for vocational education also and, on that assumption, I offer it to you almost verbatim.

"The regularization of professional behavior is purchased at a price to society. In promoting its legitimate goals and standards, any profession runs an ever-present risk of becoming parochial, self-serving and self-protective. In its zeal for growth and influence, it may allow part of its original social purpose to wither. It may, as Gross¹ puts it, 'claim for itself a mandate to tell the society what is good for it.' And it may, further, perceive a threat to its autonomy

and distinctiveness when thrust in a position of having to collaborate with professionals in other fields. Thus, we find it not uncommon for professionals to resent and devalue the criticisms of interlopers and to resist suggestions for change in policy and method. Indeed, the process of institutionalization by which a profession nourishes itself and builds into its members and effective commitment to a set of principles also creates the climate for a stultifying ethnocentrism. In short, it produces a tenacious and uncritical adherence to old beliefs and practices and an undue caution about proposed new ones."²

A critical assessment of vocational education:
some unflattering observations

It is not only courteous but quite accurate for me to report that I find much that is robust and inventive about the emergent state of vocational education in America. It is not so much with what is right about vocational education that this conference is concerned, however, as with what can be done to invigorate it anew by implementing the enabling provisions of the 1968 Vocational Education Amendments. If I am to try to do this, I must first specify what I think is questionable about the premises and practices of vocational education as we frequently observe them today. There are, I concede, limitations and hazards in your allowing an alien spirit, especially a psychologist, to attempt this, but I have no disposition to be reticent about the assignment or to apologize for my naivete. It may in fact help matters if I cast myself in the role of the ingenuous child in Hans Christian Andersen's fable about The Emperor's New Clothes. In my unspoiled innocence, the flaws in the trappings of vocational education may have a transparency not available to the seasoned vocational educators among you.

- 1) The long-standing separation between the uncompromisingly academic, college preparatory curricula of the school and the vocational curricula endures despite the fact that this division has long outlived whatever questionable utility it may formally have possessed. Factional-

ism and traditionalism are the villains here and society and our students are the victims. It would not be particularly productive to fault particular professional groups or individuals at this juncture, but it is proper to assert that the division between so-called liberal and vocational education is being synthetically maintained and that it is a division that is dangerously outmoded.

2) The United States has prided itself, not without cause, in having been if not a classless society, certainly one in which the interpenetration of social class lines has historically been a common occurrence. Indeed, far more than in most nations, education in America has been the principal vehicle for upward socioeconomic mobility and for passage to an improved station in life. The maintainence of artificial barriers between general and vocational curricula, however, tends to produce an anachronism,--an aristocracy based on educational distinctions disturbingly rivaling the older European and Asian aristocracies which were rooted in blooded nobility or ownership of land. Most parents understand this, of course, and worry about it. That is mainly why they are strenuously opposed to having their children enrolled in a program which they fear will deny them later access to college.

3) Too many vocational education programs have the net effect of imposing specific curricular and occupational choices on adolescents prematurely. Those who establish and maintain such rigid curriculum policies ignore what research clearly reveals concerning the pace of career development and vocational maturity among American secondary school youth. It is ironic that, since World War II, schools in Great Britain, France, and Germany have gradually moved away from a policy of insisting on early, strict, and irreversible curriculum decisions by school youth and have turned, instead, toward more flexible curricula. In the United States, concern about strengthening and lengthening occupational programs, while understandable, has too often resulted in a foreclosure upon curricular options for youth whose nascent vocational motivation and as yet limited self-understanding render them unqualified to make early and specific choices in an informed and confident manner.

4) Many vocational education programs still emphasize the acquisition of highly specific, discrete job skills having little transferability to other occupational fields. Sociologists Thomas and Corwin³ are among the many critics to observe that we cannot anticipate the precise skills which a student now in school will need later on in his occupational career and that the danger is that to train too narrowly is, in fact, to train for worker obsolescence. The aim should be, instead, to train for survival in a work world marked by increasing fluidity within its occupational structure and by increasing job mobility in the career patterns of its citizen-workers. I wish to return to this point later on as part of my recommendations for modifying the design of vocational education programs, especially those pertaining to cooperative education.

5) Broadly speaking, three goals of vocational education are pursued in the work experience aspect of cooperative education programs. First, the student learns the characteristic skills, duties, and practical understandings associated with the occupation to which he is assigned through a training station. These are cognitive learnings. Secondly, he acquires what we may call a work ethos, a set of attitudes, rules of etiquette, and interpersonal skills involving relations with fellow workers, supervisors, and clients. In short, he learns how society, and especially his place of work, expects him to "play the game." It is astonishing to what degree the school and the community assume that any student who is making the transition from school to employment has somehow mastered work protocol and the repertoire of unwritten and informal, yet highly critical, situational skills. It may be noted, parenthetically, that among culturally disadvantaged youth it is the utter lack of an acceptable work ethos quite as fully as inadequate training in the formal duties of the job that makes the work situation seem so bewildering and terrifying and which so frequently predisposes such novices to almost certain failure. Thirdly, the school youth enrolled in a cooperative education program may come to know better what manner of person he is--what strengths, limitations, aspirations, and personal values characterize him. These personal attributes are, as a matter of fact, frequently shaped and fortified by the work experience

itself. If the student is the fortunate beneficiary of wise and sensitive supervision, he will learn to see himself psychologically mirrored in the work situation. Thus, his experience on the training station will serve to build his self-identity as worker-to-be. While all three goals of cooperative education named above are of undeniable value, many counseling psychologists would surely rank them in ascending order of importance, attaching greatest significance to the reality testing and self-exploration functions of the supervised work experience. Counselors respond in this manner because they assume that the central vocational development tasks of adolescence deal less with the acquisition of highly specific and formal work skills and somewhat more with the clarification of the self as potential worker, with one's commitment to the idea of productive work as a social responsibility, and with the sharpening of one's occupational motives, aspirations, and plans. And yet, of course, vocational education programs typically assign the three priorities in the reverse order. Perhaps, then, the chief weakness of otherwise dedicated and highly trained work coordinators is insufficient appreciation of the enormous potential which exploratory experience makes to the vocational maturity of cooperative education students.

6) Partly owing to the tradition of separatism which I mentioned earlier and partly because schools have a badly mistaken belief that vocational education is irrelevant to the needs of the college bound and may, in fact, be a wasteful distraction, such upwardly aspiring students are typically denied access to opportunities for learning about the world of work or about themselves as potential workers. What makes this state of affairs so dismaying is our deepening conviction that all students need planned educational experience to facilitate the growth of occupational literacy and the development of occupational awareness. We live in a task-oriented society and there is escape from it for very few indeed. In one manner or another, work touches the lives of people everywhere. The widely held position of those school authorities who administer college preparatory programs that these students need no exposure either to vocational courses or work experience helps explain, I think, the provincial and often contemptuous attitudes of many college-bound students and matriculants about the occupational world.

Among those who enter four-year baccalaureate institutions, the national mortality rate is disturbingly high, probably well over 40 per cent. Lacking any exposure to vocational education in secondary school and lacking intensive vocational guidance, a dual condition which marks too many college-bound youth, such students find their options exhausted when they fail at college. For them, the vocational readjustment may be difficult.

Many junior college youth, and it is estimated that they make up approximately one-fourth of the nation's college-going population, will find that they have only succeeded in postponing the floundering period if they lacked exposure to occupational orientation in high school. By contrast, George Chamption,⁴ Director of the Center for Technological Education affiliated with San Francisco State College, has hypothesized that graduates of the Richmond (California) Pretechnical Program are probably more goal-oriented than other students when they move into the junior colleges and that they will probably make fewer changes in their fields of study.

7) I have a few final complaints to lodge against vocational education as practiced in some quarters and, more particularly, against its sometimes myopic and misplaced emphasis. The sources of these laments are similar enough so that I shall try to treat them as a group. First, the curriculum concerns of vocational educators seem often to be dominated by attention to structure, content, course requirements, credit requirements, and the like. Important as these matters are, the gaze of vocational education should be elsewhere--upon students. I would like to see a shift away from preoccupation with the logical structure of curriculum per se and toward answers to the question of what curricular and work-related experiences produce what kinds of behavioral outcomes in students. On a kindred theme, the criteria by which the success of programs is judged have frequently favored simple head counts. For example, short-term and expedient indices of the functioning of a program are commonly employed, such as the number of students enrolled in vocational education courses, the number of placements in cooperative education work settings, or the number of placements of graduates. Such criteria need to be matched by assessments of changes in students'

vocational maturity and by longer term career pattern data which trace shifts in student values, work attitudes, and self concepts. The development of such criteria is admittedly demanding and requires some research design sophistication. In the long run, however, their use will tell us more about the significant things we wish to know about students and, in so doing, they will tell us more about the effectiveness of our vocational education programs.

Finally, vocational educators more than other teachers must remain constantly alert to the distinction between considerations of manpower utilization and those of individual development. While an industrial democracy constantly strives to maintain a delicate balance between the two values, it is to the latter, the fostering of individual human development through training and guided work experience, that the vocational educator owes his chief allegiance. During a 1967 visit to the Far East I was greatly impressed by the vigor of the vocational education and vocational guidance programs in the developing nations of that part of the world, such as Korea and Singapore. At the same time, it became clear to me that the strong government support given to these educational operations stemmed from an urgent need to develop skilled manpower pools in areas of critical shortage. Ideally, we take the position that, except in times of dire national emergency, our first obligation in forging and conducting vocational education programs, including cooperative education arrangements, is to the full individual development and career development of the student. It should not be the expectation that vocational guidance and vocational education will serve primarily as recruiting systems for the nation's needs. Under the pressure of operating vocational education programs on a day-to-day basis, it is all too easy to lose sight of this significant philosophical distinction.

The case for cooperative vocational education

There has always been a need to assist young people to make the transition to economic independence through some sort of guided work experience. When society does not provide the formal means for this bridging function, coming to adulthood can be doubly hard for youth. In Samuel Hopkins Adams' book, Grandfather Stories, which is a fascinating

social history of life in the Erie Canal region of Upstate New York in the 1880s, Adams tells of discovering a diary among his grandfather's possessions. The account, dating from 1827 or 1828, relates a brief conversation with a vagabond boy who is seeking employment on the canal.

Urchin: Got a job for a poor and honest young fella, missus?

Diarist: What kind of job?

Urchin: Ten shilling a week and found.

Diarist: What could you do to earn such a wage?

Urchin: I'm a canawller, I am. I can drive, steer, clean stable, bed down the critters, plug a leak, splice a rope, fight the rafters, and help with the scullion work.

The diarist records the following note: "There are scores of these wretched little pinklings canalside who take towpath jobs for ten dollars a season, and then are fobbed off by evil captains with depreciated currency or perhaps no wage at all."

Much later, concern for the welfare of the uprooted and transplanted who were to be found in the cities of the Eastern seaboard was in part responsible for the social reform movement which flourished around the turn of the Twentieth Century. Early examples of vocational guidance and vocational tryout date from that period.

While circumstances surrounding work and the economy have changed markedly, learning to assume the work role successfully remains today for most young people a chief means by which they establish their adulthood. Elsewhere I have tried to conceptualize the psychological exploration process of coming-of-age through the medium of work:

"We have long viewed adolescence as a critical psychological stage in the socialization of youth. It is a stage marked by the shedding of immature habits and values and a groping for new ones. It is a stage characterized by an acceleration in role exploration and reality testing. The adolescent, haltingly and with the limited skill born of inexperience, assumes a wider range of social roles, many of which hold for him the lure of increased personal freedom. These newer roles he continually tries out within the milieu of his own age group, his own sex group, his particular

socioeconomic group, and within the larger adult society. How successfully he learns to handle his new roles, or more accurately, how he perceives himself as performing them as the relevant reference groups feed back to him their expressions of approval and disapproval--this determines to a significant degree the quality of the revamped ego identity he will establish, the kind of unifying image he will form of himself. We say in the household language that he is "learning to grow up." We mean that he is developing techniques of coping behavior which will earn for him social approval, personal acceptance, and a secure place in adult society. In this developmental process, the role of worker-to-be is a crucial one. Accordingly much, although certainly not all, of the coming-of-age behavior of the adolescent is better understood when we try to view it as a search for vocational motives and the working out of an appropriate vocational role."

The process is hardly as serene and orderly for today's youth as my conceptual account might seem to make it. On the one hand, our society has given adolescents increased freedom for personal decision-making, including choices involving career. On the other, we have made it more difficult for them to test themselves against the environment. The alienation of youth from adult society has been chronicled by such men as Paul Goodman, Edgar Friedenberg, Erik Erikson, David Riesman, and more recently, by Kenneth Keniston in his superb book, The Uncommitted. The peer culture of adolescents, always an interesting social phenomenon, may perhaps be more distinct and independent today than at any time in our nation's history. One hears increasing reference to the "intergenerational gap." It is, of course, as difficult a problem for adults as for the young. Those of us who have reached the age where we have adolescents in our own families have come to realize that children are not necessarily a comfort in old age, as reputed, but they certainly help us get there faster.

It may be instructive to restate the problem of disjunction between the generations in occupational terms. Contemporary youth is inadequately socialized to meet the expectations and demands of the occupational

world. Much of the weak socialization (improperly cultivated attitudes, perception, understandings, work habits, interpersonal relations with adults) is related to a serious detachment of large numbers of young people from the world of work. One condition contributing to this state of affairs originates in the kinds of specialized and detached jobs which exist in large numbers today. Parents and other adults are much less visible and effective as occupational role models for children and adolescents who, at one time, routinely used such role models as a principal means of learning vicariously what work meant.

Today's adolescent youth is, furthermore, less commonly considered an economic asset to the family or treated as such. Economic affluence and the self-maintaining modern home allow little place for middle-class and upper-class youth as an economic asset. He and his values are often alien to and out of phase with a surrounding world of working people. Later, when he attempts to find full-time work, he may again encounter an unreceptive environment. While the economy is relatively stable and national unemployment rates have for some time hovered at about or slightly under four per cent, those under age nineteen and no longer in school show two to eight times the national unemployment rate, depending on their amount of schooling, sociocultural setting, minority group status, and other limiting factors.

While the expanded economy has provided casual, parttime jobs for large numbers of secondary school and junior college youth, the great majority have no deep ego involvement in such work. They remain psychologically aloof from it, fail to profit from it as exploratory experience that advances career development, and with minor exceptions, do not enter fields of work related to it when they take full-time employment later on. The difference in impact between such casual, parttime employment and the guided work experience found in cooperative education programs is indeed vast.

Given the foregoing picture, it is hard to deny the need for improved and expanded vocational education opportunities for all youth and especially for expanded programs of cooperative work education.

Vocational maturity in adolescence: a period of transition

Vocational and counseling psychologists have conducted numerous

studies on the development of occupational thinking in youth. Such investigations have shed useful light on such matters as the job fantasies of young people, the human agents and environmental conditions which influence their curricular and occupational choices, the tentative and shifting nature of their preferred fields, the significant attitudes and personal values which they associate with work, the types of information they possess about their chosen fields and about the means of implementing their choices, and the changes which occur from age to age in their self-understandings and decision-making strategies.

The insights gained from such studies provide a sounder empirical basis for vocational counseling and curriculum design. Career development researchers and counselors are convinced, for example, that mid-adolescence, the age range in which upper-secondary school students usually fall, is one which is characterized by tentativeness of occupational motives and curricular preferences and, therefore, one which calls for strong educational emphasis upon rich and varied opportunities to explore environmental options and upon the development of a broad spectrum of transferable skills, understandings, and personal values rather than upon the teaching of a narrow band of specific vocational skills.

Evidence to support such a point of view, one which favors a career development approach to curriculum making, derives from research findings on vocational maturity such as the following:

1. The general occupational information which students have is often severely limited and of doubtful accuracy.
2. Students frequently possess stereotyped conceptions of their preferred occupations.
3. The opportunity to work at an outside job, especially one related to the student's interests, and exposure to particular school subjects, frequently condition the tentative vocational choice. Among human agents, parents are named with greater frequency than teachers and counselors as having influenced the preferred field of study or occupation.

4. Substantial numbers of high school students, probably more than half, change their preferred fields of study or preferred occupations between the tenth grade and the first six months following graduation.
5. Students frequently fail to understand the steps they must take to qualify for their preferred or chosen occupational fields. Their educational aspirations often fail to match their occupational aspirations.
6. The educational-vocational planning activities of high school students are often characterized by short-term considerations. They may know the next step in the plan, but fail to understand the long-range planning process.
7. Vocational indecision is widespread among high school and junior college students. In many cases, the indecision is matched by a lack of planfulness. Such students either lack commitment to the idea that they should be developing a plan for educational-vocational life or do not know how to begin the development of such a plan. Many of them seem fatalistic about what the future portends. They appear not to have learned that it is possible to shape their own career pattern by establishing and implementing rational plans which are based on sound information and a selective use of resources.
8. Culturally disadvantaged youth voice occupational aspirations which are approximately as ambitious as those of students of more favored socioeconomic status, but in the case of the former group there is a greater disparity between the preferred occupation and the kind of job they see themselves as ultimately holding. That is to say, children from disadvantaged homes are often pessimistic about their occupational opportunities and they tend to scale down their expectations considerably below their aspirations. At the same time, those lower socioeconomic status students who name high-level occupational objectives often fail to show a realistic appreciation of the educational steps requisite to the implementation of their choice.

9. Studies with farm and nonfarm rural backgrounds generally have more limited educational aspirations and a more restricted range of occupational aspirations than students in general. The potential value to such students of both the Upward Bound program and of cooperative vocational education in raising educational aspirations and in broadening occupational perspectives seems clear.
10. High school students frequently fail to use guidance facilities to evolve a flexible educational-vocational plan. Among graduates of secondary school vocational educational programs, about one-half recalled discussing course choices with counselors and only about one-fifth recalled discussing job plans.
11. Students commonly enter full-time work in fields unrelated to their training or their part-time work experience. Fewer than one-third of a sample of high school trades and industrial graduates took employment directly related to their school preparation.

Career development goals for cooperative vocational education

The fact that the foregoing conditions accurately describe large segments of American school youth in no sense implies that the rate of vocational development is fixed and beyond the capacity of the school and the community to modify. To the contrary, it becomes the explicit task of education and society to provide those experiences for youth which are conducive to the acceleration of vocationally mature behavior. Much of this educational responsibility, certainly not all of it, rests with guided work experience, particularly with formal programs of cooperative vocational education.

For the most part, it seems to me that the conventional objectives of cooperative vocational education remain valid, for the near future, provided that the total training experience is kept broad and that alternate options are kept open to the student. But it now becomes necessary to attach new importance to those goals of the program which have their major concern in the fostering of the career development of the student. Such aims must include:

1. Assisting the student in discovering opportunities for reality testing in the environment toward the end that his identity formation will be further advanced.
2. Helping the student to arrive at a commitment to work as an obligation to society and as a condition of his own developing maturity.
3. Cultivating in the student a deepened regard for the world of work and especially for the work of others.
4. Sensitizing the student to the indispensability of both job performance and motivational conditions of successful work. In this regard, Herzberg's work on motivators and hygienic factors is relevant as is also the series of studies on work satisfaction and satisfactoriness published by the Work Adjustment Project at the University of Minnesota's Industrial Relations Center.
5. One of the difficulties in redefining the career development goals of the schools is learning how to operationalize them; that is, to cast them in terms that are manageable for the measurement of student behavior outcomes. Illustrative of the behavioral objectives approach are the Minnesota group, particularly Professors Klaurens and Tennyson, the project teams growing out of the summer 1968 Vocational Development Seminar at West Georgia College under the leadership of C. R. Cleere and Gene Bottoms, and the Center for Occupational Education at North Carolina State University with research leadership from Professors Coster and Westbrook.
6. Let us suppose that we were forced to specify a central educational objective within the career development theme, one to which all other goals would need to be related to have meaning, or one whose attainment would be seminal in terms of its far-reaching impact on the student's developing vocational maturity. For me, that integrating objective would come close to the idea that the student needs to be trained to assume responsibility for the rational and effective planning and management of his own career. His outlook must be realistic, of course,

but above all, it must reflect his belief that his acting upon the environment will make a significant difference in his life.

A few days ago I had a young Korean student in my office who is an applicant for admission to our doctoral program in counselor education. In describing himself on his application form, the young man said, "I am the kind of person who, when the days get windy, yearns for wings instead of shelter." It seems to me that this is the quality of outlook we intend to instill in youth when we are at the important business of fostering their career development.

Recommendations

Toward the close of this talk, time permitting, the speaker hopes to offer a series of recommendations for promoting the career development objectives of cooperative vocational education.

- 1 Gross, E. in H. Borow (ed.) Man in a World at Work, Boston: Houghton, Mifflin, 1964, Chapter 4.
- 2 Borow, H. The Counselor's Role Redefined: Investment of Self in Work, Unpublished paper written for College Entrance Examination Board, New York, 1962.
- 3 Thomas, S. and Corwin, R. G., Some Comments on the Status of Vocational Education in the United States; Unpublished conference paper, Vocational Guidance in Vocational Education, Ohio State University, Columbus, Ohio, 1966.
- 4 Champin, G., in New Directions in Vocational Education, U. S. Office of Education, U. S. Government Printing Office, Washington, D. C., 1967.

Remarks
of
John A. Sessions
Education Specialist, AFL-CIO
concerning
"The Silent Field and The Dark Sun"
Before the
National Conference on Cooperative Vocational Education
Minneapolis, Minnesota
February 26, 1969

I should like to begin my comments by reading a poem. I will explain why in a moment, but first, here is the poem:

Fearfully, the silent field faded
Under the deserted guns:
As the love floated,
The dark sun glowed ominously.

I don't happen to think that this is a terribly good poem, but it is better than 90 per cent of the poetry that is published in America today, and in many ways it is one of the most important poems that has been written in the English language since the sonnets of Shakespeare.

This poem was written by an IBM 709 computer. It is one of the earliest poems among what is by now a large body of computer written poetry. Among computers, the IBM 709 is altogether creaky and old-fashioned, and yet it is capable of writing 500 of these poems in one minute. That is more poems in one minute than John Keats wrote in his entire lifetime.

Now I started to do a bit of arithmetic as I was thinking about this. A poem, of course, is of no use unless somebody reads it. It occurred to me that if you took one thousand of these IBM 709 computers and put them to work 24 hours a day writing poems at the rate of 500 a minute, and then hired people to read these at the rate of one poem a minute for 40 hours a week, to keep up with the output of these 1000 computers, it would take all of the unemployed workers in America. I submit this as a novel solution to the problem of unemployment.

There is one difficulty with my solution to the problem of unemployment and that is that most unemployed workers are not very skilled in the reading of poetry, and quite honestly, most of the poetry is not really worth the effort. The person who programmed into the

computer had some misconceptions about poetry which he programmed into the machine and the misconceptions came out in the poetry which resulted. So in order to do this kind of thing, we would have to have an unemployed work force that knows a great deal more about reading poetry and we would have to have programmers who know a great deal more about writing it.

But here in this rather whimsical way we can see many of the problems of vocational education. We live in a world in which to be a worker, a trade unionist, a citizen, one must know a great deal more than individuals have ever been called upon to know in the past.

It is an unhappy historical fact that most school administrators have been so preoccupied with the needs of their college bound students that they have been inattentive to the needs of the students who do not plan on following high school with college. As a nation we can well be proud of the fact that one-third of our young people enter some form of higher education. And yet, we must not become so carried away that we forget that two-thirds of our young people do not go on to college. Under the best of circumstances, there will continue to be millions of young people who don't want to go to college, who won't go to college, and who shouldn't have to go to college in order to establish a place for themselves in society. Among them will be some of the ablest young people. Our schools are not doing their job if they concentrate all of their major efforts on the one-third who are headed for college and give short shift to the two-thirds who are not.

Most guidance counselors can provide a student with precise and detailed information as to the courses, grades and test scores which he will need if he is to be seriously considered for admission to Harvard. But it is a sorry fact that very few guidance counselors have even a remote idea of what high school preparation would be desirable for an apprentice electrician.

We need then a high school level vocational education which is part of a total system of education that provides every student with maximum opportunity for self-development. We need to widen our conception of what is vocational. English and mathematics are as much a part of vocational education as mechanical drawing and the use of tools.

And it is not simply as tool subjects that vocational students need the liberal arts. Literature, history and the social studies provide the sense of human dignity and purpose that every citizen needs in the twentieth century society. We need desperately to build a new kind of curriculum which makes rigorous general education meaningful to vocational students. We need it because they need it to perfect their skills and we need it because the purpose of vocational education is not simply to prepare the student for a job, but rather to help each student find the best that is in himself.

If we are to fulfill our responsibilities, then, we must look closely at the job market and we must look closely at the students whom we are preparing for it. Hopefully, vocational education will attract many students who have achieved high proficiency by the time they enter high school. We need high ability students in the work force. But surely there is no greater challenge for vocational education than the part which it can play in preparing disadvantaged young people for a useful and productive life. We cannot accomplish this by the traditional ways; we need to explore bold, imaginative new approaches.

Nearly a third of our young people drop out of school without graduating, and in most large cities the figure is even higher. These young people leave school before we even have a chance to reach them through traditional vocational education methods. There is only limited hope in urging them to return to the schools which failed to engage their interest before.

The Vocational Education Act of 1963 and especially the amendments of 1968 provide a wide range of new opportunities as we confront these problems.

This conference is concerned with one of these opportunities, the cooperative vocational education program created in Title I-G of the 1968 amendments. It is useful to concentrate our thinking on a single program, but it is also important that we remember that the program which we are examining is a part of a much larger whole. We are dealing here in this conference not with the way, but with one among many ways. It is for this reason that I have taken so much time to broadly outline the general problems as I see them. Given the magnitude of the problem, I would insist that there is no one way of teaching vocational education.

We have to serve all of the people and it is central to the philosophy incorporated into the Vocational Education Amendments of 1968 that we need many approaches to vocational education to meet all of the needs. The residential vocational schools, for example, authorized by Title I-E, are for many students a more promising approach than cooperative education. The consumer and homemaking program authorized under Title I-F is another bold and useful approach and it does not readily lend itself to the methods of cooperative education.

So let us understand, then, that we are talking about one program among many. That one program holds great promise. Work and teaching have too long been separated. In the one room country school house working and learning were rather closely related, but, like a nagging married couple they soon separated. Cooperative education promises to rejoin them in a still more meaningful relationship.

I am a member of the Washington, D. C. Board of Education, and I would like to share with you an experience which we have had in the Washington school system. I think that it has a bearing on the subject of this conference.

For three years we have had a rather limited work scholarship program, as we have called it, in the high schools of Washington. This program has been so designed that the students are selected entirely from among those identified as having a high potentiality of dropping out of school. Recently we completed a study of the results of this program in three high schools, all of them schools with a high proportion of economically disadvantaged students: Eastern, Dunbar and Cardozo high schools. The results were truly astonishing. We must remember that the students selected for this work study program were chosen because their income, their family circumstances, and their school records indicated a very high potentiality for dropping out of school. During the year period covered in the study 17.5 per cent of the total student body in the three schools become dropouts. Yet among the work-study students the dropout rate was only 1.8 per cent. In other words the dropout rate was 1,000 per cent higher for the total student population than it was for the work-study students, even though the work-study students had been identified as especially dropout prone.

Quite frankly, when I first saw this study I questioned the statistics, but the statistics proved to be quite correct. This is one indication of what can be done if we make learning and working more closely related than they have been in the past.

Now I am sure that we all would agree that there is a tremendous difference between a work-study program such as the one that I have been describing in the Washington high schools and the kind of cooperative education we are talking about today. No one presumed that the jobs to which the Washington high school students were assigned had any significant educational component in themselves. Their sole purpose was to provide income maintenance as a way of motivating them to stay in school and of providing them with a sense of their own worth. It is an educational fact of life which we must never forget that to the individual student the greatest cost of education, whether in high school or in college, is the income which he must forego in order to remain in school. Work-study programs in some measure are designed to ease this burden on the student.

The cooperative education program provides the same features of income maintenance as are features of the work-study program, but it involves also the added factor of work which is planned in such a way as to be in and of itself an extension of the educational program. In this way it can provide an even higher motivation than the work-study program. The work experience in work-study programs is not related to skills which will be used by the student in future job opportunities. The work experience in cooperative education must be carefully designed as preparation for the job which the student will eventually hold.

But even keeping this distinction in mind, the experiment in the Washington high schools which I have described provides some indication of the extent to which this kind of bringing together of working and learning can at last begin to reach some of the young people that we have simply not been reaching in the past. Because of the enormous possibilities along these lines, we of the AFL-CIO are very enthusiastic and very hopeful about the cooperative education program authorized by the Vocational Education Amendments of 1968.

Now having said this much, I would like to make a few comments about what we see as the main features of the classroom instruction and of the work experience which comprise the cooperative education program.

As to the classroom instruction, it is becoming increasingly evident that the most important vocational asset which a student can have is the capacity to change. The rapid development of new technology means that the worker who is most flexible, who can most readily adapt himself to new industrial processes is the worker who is going to have the best chance of survival.

The pipefitters who work on the atomic submarines are held to an allowable seepage of no more than one drop a year. The workmen who installed the plumbing in my house knew nothing about that kind of pipefitting. I once worked as a machinist and we took boastful pride in the fact that we worked to tolerances of 1/100,000th of an inch. Today there are machinist jobs under government contract in which the allowable tolerance is zero. Now quite honestly, I haven't the faintest idea of what that means. It fits in with nothing that I know of machine work.

But one thing I do know. It means that not just our doctors and our lawyers, but our plumbers and electrical workers and our mechanics, if they are to survive in the economic realities of the world today and tomorrow, are going to need an education which would have been beyond the reach of Plato's philosopher kings.

The vocational student must have an academic curriculum that is broad enough to show him the wide range of opportunities which are open to him and to prepare him to move into the new range of opportunities which will exist for him in the fluid world of the future. One of the great needs in vocational education is for research and new thinking in the whole area of how we can make the academic part of the vocational curriculum--the English, the mathematics, the social studies, the sciences--how we can make these things relevant and meaningful to the vocational student. Only to the extent that we succeed in this responsibility will we truly prepare him for economic survival. It is every bit as important, and perhaps even more important, that we teach the values of literature and history and the sciences to vocational students

as it is that we teach these subjects to students preparing for the universities.

Let me then turn to the work experience which is the other component of cooperative education. Here too of course the important thing is not that the student learn specific skills, but that the student learn attitudes toward his skills which will enable him to later modify them or change them altogether. The student needs a work experience which will give him an insight into the nature of technological change and into the range of opportunities which technological change makes possible. The student needs above all to learn the techniques of adaptability.

The student is not going to learn the things which he needs if his work experience is haphazardly thrown together. Planning the work experience must be regarded as an aspect of curriculum building, and it is precisely in this regard that cooperative education is most strikingly different from work-study programs. The work experience must be a joint planning venture of the schools, industry and labor if it is to fulfill its intended purpose.

Fortunately, we have a considerable body of experience to draw upon, because cooperative education is really not a new idea. Cooperative education has been taking place since colonial days and it has been called apprenticeship, because in fact the whole apprenticeship system is a form of cooperative education. Under apprenticeship, on-the-job training and the related classroom instruction have been closely integrated by joint planning on the part of employers, unions, and educators. That pattern of joint planning is one which needs to become an integral part of cooperative education.

There is another feature of apprenticeship programs which is relevant to our thinking about cooperative education. The planned apprenticeship work experience takes place within a framework of negotiated wage rates for learners. If cooperative education is to succeed in America, it, like the apprenticeship program, will need to succeed on the basis of maintaining the basic standards of wages and hours and working conditions which have been established over the years. Organized labor wholeheartedly supports the principle of cooperative education, just as it has wholeheartedly supported apprenticeship programs, but we will not permit the

erosion of the negotiated wage structure. We will not permit violations of child labor laws. We will not permit relaxation of laws such as those which put a limit on the weight to be lifted by minors.

These standards did not come about as a result of accident or willfulness. They were established with great effort in order to deal with real problems. In 1808, for example, an employer by the name of Isaac Burneston inserted the following advertisement in a Baltimore newspaper:

This Manufactory will go into operation, in all this month, where a number of boys and girls from 8 to 12 years of age are wanted, to whom constant employment and encouraging wages will be given... This being the first essay of the kind in this city, it is hoped that those citizens having a knowledge of families who have children destitute of employ, will do an act of public benefit, by directing them to this institution.

It is quite clear from his language that Isaac Burneston had a rather good image of himself. He had a method of keeping the kids off from the streets, reducing youth unemployment, and waging an effective war against juvenile delinquency. It is also quite clear that beneath Isaac Burneston's kindly countenance was the soul of an absolute monster who proposed to get rich by working eight year old children in a sweatshop from sun-up to sun-down.

Today there is an enormous pressure, under the name of helping young people get to work, to relax negotiated wage rates and even minimum wage laws and in other ways to whittle away at the standards which separate the work force of today from the world of Isaac Burneston.

If the work portion of cooperative education involves unusual training costs for the employer, if the student worker is not able to perform as the employer expects his regular apprentices to perform, then the answer is not to lower the pay scales but to provide subsidization for the employer. Subsidization should only be provided where the employer can demonstrate that the costs of the training are substantial.

Here again, it is evident that planning the work experience must be a cooperative effort of the schools, the employers, and the unions,

an effort that in most cases can best be facilitated by the establishment of local cooperative education advisory committees which will participate in planning the programs and in evaluating their effectiveness.

If we are able to satisfy these requirements, if we are able to develop a meaningful classroom experience that will prepare the student for the wide range of opportunities that will open up to him, and if we are able to provide the related work experience which will provide him with skill orientation, then we have a program of great promise which can at last make vocational education a truly meaningful preparation for the future. Through cooperative education and through the other mechanisms established by the Vocational Education Act of 1963 and the amendments of 1968 we can together develop a plan of education worthy of an age in which machines can write poetry and men can sail out to the stars.

Remarks
of
Robert V. Guelich
Vice President of Public Relations, Montgomery Ward, Inc., Chicago
concerning
"The Employer's Role in Cooperative Occupational Education"
Before the
National Conference on Cooperative Vocational Education
Minneapolis, Minnesota
February 26, 1969

This Conference is a most important one. It's a privilege to share in this part of your program.

Fortunately, we are advocates of one "cause"--cooperative vocational education. Being a native of Dayton, Ohio, I became aware of educational co-op work many years ago as Antioch College and the University of Cincinnati pioneered in this field. My personal interest in this field for the past eight years has been related to Distributive Education through the National Advisory Board of the Distributive Education Clubs of America. As a member of Montgomery Ward management, I can assure you of our Company's strong interest in vocational education. A full spectrum of career opportunities is available in the retail industry for young people, particularly those who start early through cooperative vocational education programs.

Another personal reason for my interest is that of a tax-paying citizen representative as president of a Board of Education serving six thousand high school students.

Finally, I have a personal conviction that one of the great shortcomings of our educational systems for young people in an affluent society is the lack of opportunity for constructive work experiences--and Cooperative Vocational Education can help solve this problem.

I have been asked to comment on some concerns and challenges related to cooperative vocational education, to answer some specific questions provided by your conference planners, and to discuss some of our mutual concerns and needs.

If time remains, and I hope it will, we can ask each other some questions.

In preparing these remarks, I've drawn on our own extensive corporate experience with vocational education. Much of this has been with Distributive Education. Montgomery Ward employs approximately 1000 D.E. students, most of them at high school level, in locations throughout the country.

In one of our largest metropolitan markets, we currently employ 128 high school and 10 post-secondary distributive education students in 11 stores and 39 of our full-time employees are former P.E. students. Among these are two department managers and operating managers.

Nationwide, we have a number of store managers who are former D. E. students; also, the operating manager of our stores here in the Minneapolis-St. Paul District. The executive who heads the largest of our company's four regions, and is a vice president and director of Montgomery Ward, is a product of a cooperative education program in retail selling--a direct forerunner of the D.E. program.

We are pleased with the progress being reported in vocational education, but cannot be satisfied. We still hear, as we did recently from a personnel manager in San Antonio: "Too many D.E. students do not have career interest; too many are in it for the immediate dollar; too many leave as soon as they complete the program."

Another program that has been very helpful to us, and to the students involved, is our "Wardette" office training program. Currently, some 30 high school juniors and seniors are in this office occupations program in our corporate offices in Chicago. About 50 former "Wardettes" are now full-time employees. Among them are a number of executive secretaries. The reason we don't have more is that other companies hire them away from us faster than we can promote them.

Our "College Cadet" program, although not cooperative education in the sense that school-job coordination is required, is proving increasingly effective in developing future management. In this program, college juniors and seniors work 20 hours per week and full-time during summer vacations. Upon completion of their college work, they move into junior management training programs that prepare them for key positions in merchandise, operating or personnel departments.

An example of the potential, and actual, interrelationship of programs is provided by one young man who began with us as a D.E. student six years ago. He progressed through the high school program, four years of college (during which he was in our College Cadet program), the junior management training program - and is now a key department manager in a multi-million dollar retail store... all this while working in the same store (Maryville) in his home town (Phoenix).

In increasing value and effectiveness of vocational education, national youth organizations have made major contributions. The Future Farmers of America and Distributive Education Clubs of America, to mention only two, have been extremely important in instilling challenge, drama, competitive spirit and long-range career relevance. As job opportunities increase, these organizations will be increasingly important in expansion of cooperative programs to meet our ever-increasing needs. Educators and employers must provide increased support for such groups - at all levels.

Education can be broadly classified in two categories -- education for living and education for making a living. Those of us here believe and are committed to the principle that education for living, alone, is not enough.

Since World War II, our economy has become increasingly mechanized, automated, technology-oriented. The pace is fast. Demands on employees' skills, knowledge, expertise and adaptability are increasing. Education must be relevant to those demands -- not for jobs, but for careers for young people.

It is not important to review at this time the growth of vocational education in this country. It is important, though, to recognize that we have not kept pace with changes in job and career requirements. Our vocational education in this country is fine for the 50's, no longer satisfactory for the 60's, and totally inadequate for the 70's--not 1979 but 1970, the school year that begins six months from now. Although it is gratifying to note that the Vocational Education Amendments of 1968 did not draw a single dissenting vote in either the Senate or the House, it is more gratifying to see this Conference in action to urge even greater

changes in this session of Congress. I congratulate you leaders from the universities, the States and the National Advisory Council on Vocational Education.

Now let's take a few minutes to discuss some topics that employers are concerned with:

Who are we talking about? We are talking about serving young people, not the curriculum or the system. We hope to find out what vocational and career interests the student may have, then help him attain them through both curriculum and work experience. I am less concerned with the right choice of the right vocation than I am that the student will be enthusiastic about the type of study and work he or she is doing. Let us do our best to preserve and develop interest and enthusiasm. They, along with integrity and responsibility, are more important in the jobs of the future than are skills that are quickly obsolesced in our business system.

It is obvious that many adults also need retraining for shifts into new vocational and career interests, and this is a most important service of the educational-business relationship.

Counseling of students is all-important as we help them find their career interests; this is primarily the responsibility of the school through supervisors and teachers; a student who adjusts to good counseling at school can also adjust to good counseling on the job. And let us not overlook the fact that the majority of our students now go into white-collar jobs where people-to-people relationships are all-important.

Another major concern is how do you select and evaluate employers, their performance and the work-study programs themselves?

Simplest answer is RESULTS--performance and progress of the student and his enthusiasm for his work and future opportunities. I believe it is important to keep records of student progress through the years. Education cannot be circumscribed by semesters; let us not overlook that we are helping shape long-term life patterns that will also affect the families of our student according to his attitude toward work and toward our way of life.

This also should influence selection of the employer--one who is interested in the person more than the job. Employers know that turnover

is too costly to afford. If they can keep an employee, it proves profitable for both employee and employer. Therefore, choose employers who want to help young people attain their career objectives and who will provide on-the-job training opportunities--not just during the semester, but through the years.

It is increasingly difficult to evaluate the complete work-study program as job specifications become more volatile. I'm not sure that it is better to train a person for a job and then be proud of your performance because he is in the same job ten years later. I would rather evaluate the income he has attained and his progress as a citizen, even if he has moved through several unrelated jobs. In evaluating programs, let us not depersonalize the rating scale so it looks good on a chart.

Another question frequently asked of employers is what kind of competencies are you seeking? Implicitly, I have already made the point that a well-motivated and interested worker can be more important in the long run than a person with specialized skills. If we can have both, so much the better. And sometimes we must tailor programs to specific skills because of the nature of an employer's business. So, help them develop excellence in whatever skills they may have. With excellence, comes confidence and maturity and adaptability to changing work situations. Our objective should be to help the student excel in his present job situation as a foundation on which to build broader vocational competence and progress.

At this point, I would like to inject a reminder that it is easier to get to our destination when we know where we are going - and when we have a road map - than when both destination and pathways are unknown. This is a trite way of restating that employers and teacher-coordinators must continually re-emphasize the objectives of the program. It is more than a part-time job. It is a career training program that must be constantly monitored and adapted to each student. It isn't a contract you can sign in September and accept payment for in June. It is our job to re-stimulate interest of businessmen in keeping their eyes focused on the ultimate objective of building tomorrow's managers from today's students. Make certain that your students are treated as trainees, not part-time job fill-ins.

Every conference between educators and businessmen faces the same question: How can we work together better than in the past?

First, you decide you want to work together better; then you do it.

At a recent conference of superintendents of major cities, representatives of major corporations and government and local officials, held in the prestigious Harvard Club of New York City, 200 of us wrestled with the same question. And we came to the same conclusion.

You decide you want to work together, then you do it. You agree on your objective, then you plan and work toward its attainment--letting the minor distractions and differences drop by the wayside.

This answer is probably too simple, so I will restate some of the other guidelines. A cooperative vocational education program means cooperation between educator and businessman to build the career of a young person. Let us remember we are cooperating. It is more than a student-teacher or employee-employer relationship. It is a commitment to cooperation between school and businessman.

This can be promoted by teachers doing a better job of educating businessmen in their own communities to understand what you are doing and what you have to offer. We need more knowledge about the programs you take for granted; we need more knowledge about the successes and commitments of other employers working with you; we need a road map as to how we and you, cooperatively, can work together with a step-by-step training plan that will benefit all.

Businessmen need to know that a teacher-coordinator is a vocational educator with a background of work experience in the business world. . . a person who understands the requirements that employers demand of employees, a person who is able to communicate with students and is interested in their development.

Now let us discuss some of the questions frequently addressed to employers.

Who should represent employers to provide cooperation and leadership, and how do you enlist their help?

In organizing programs, a cross-section of employers offering many vocational opportunities should be involved. Leadership should come from a balance of manufacturing, retailing, agri-business, services,

professions, health occupations and others. In operating and evaluating programs, key roles are best performed by personnel specialists. When developing programs in several vocational areas, a "cooperative vocational education advisory committee" can be established. Representation should include employers and school personnel. To get top representation, I suggest direct contact: top school officials should contact top business executives; teacher-coordinators should contact personnel managers; etc.

Another subject for discussion is what employers and other groups can do to build a favorable image for cooperative education among students, parents and community groups.

Employers can work within and through business, civic and service groups in building understanding of the importance of cooperative vocational education as related to the student, the community, the economy. Employers can participate in career events and classroom sessions. Employers' direct communication with students, on the job, as neighbors, through youth groups, can result in effective feedback to fellow students, parents and teachers. Employers can enlist the support of public information media in presenting information on career opportunities and the merits of cooperative education, resulting in broad-based interest and awareness of the importance of these programs to increasing numbers of the community's young people.

Another concern is what schools can do to relate better to employers. Teacher-coordinators must keep attuned to business trends and developments. They should continually enlist support of additional employers to broaden the base of training stations. School supervisory personnel, in consultation with employers, must evaluate effectiveness of teacher-coordinators....School administrators can encourage businessmen to serve on boards of education and on advisory councils and committees.

Frequently employers are asked: "What are some of the potential training opportunities for work experience not now being utilized?"

The field of computer technology and data processing offers many opportunities. Beginning experience, including basic machine operation, can lead to advanced programs including mathematics emphasis in the classroom and work experience in management systems....Trade and industrial cooperative programs could include work experience in graphic arts and

packaging design...Cooperative programs in the home economics area could include experience with social and other agencies in preparing girls to provide in-the-home care for children and invalids as well as positions in day care centers.

As demand for services continues to increase, there will be opportunities to develop cooperative programs in virtually all areas of the very important service occupations.

As you know, the Vocational Education Amendments of 1968 include provision for programs for the disadvantaged; Part G - Cooperative Vocational Education Programs - includes such provision. Our company has been engaged, since last September, in a "hard core" employment and training program. Operated through a contract with the U.S. Department of Labor under its MA-3 Program, 282 unemployed, hard core individuals have been hired and are being trained for meaningful work in our catalog houses, and in some instances, retail stores. The program includes 300 hours of classroom training, including some "basic education," as well as sensitivity training for supervisors working with the trainees. Results to date are excellent. This program is designed to do a specific job and it is extremely costly. It is this type program which might call for reimbursement of employers through Section 173 (a)(3), discussed earlier. Objectives of such programs, and all new programs, must be clearly spelled out and understood by all involved--educators, students, employers. However, as cooperative vocational education programs proliferate, there is more need than ever before to be specific about objectives, procedures and operations of all programs -- to make certain the cooperative features of vocational education receive full emphasis at national, state and local levels.

The Amendments of 1968 require that each state appoint a Vocational Education Advisory Council. In most states this must be done by March 30, 1969. Those in education administration can be most helpful in keeping employers informed about the objectives of these Councils and in seeking employer representation when warranted by experience, interest and commitment.

Similarly, educators can keep businessmen posted on what they can do to encourage future legislation relating to cooperative vocational education.

Although Part G of the 1968 Amendments authorizes appropriation of \$35 million for Cooperative Vocational Education Programs for the fiscal year ending June 30, 1970, specific appropriations are still in question. It's my understanding that the Federal budget presently calls for expenditures for Cooperative Vocational Education Programs in fiscal 1970 in the amount of only \$14 million. This certainly suggests an area where educators and businessmen can work "cooperatively" right now.

I look forward to learning of the recommendations and actions to come out of this conference and the other regional conferences. As the term "vocation" stems from the Latin "voco" and thus suggests a "calling," let us work to assist the great numbers of today's young people in finding their "callings" and then in "doing their thing" so it will be meaningful, constructive and rewarding for them as individuals and as citizens of our ever-changing nation.

Above all, we need to train leaders. As many of you will recall, John Gardner, former Secretary of Health, Education and Welfare, has pointed out that some parts of our educational establishment seem to be inoculating our students against leadership. This revolt against leadership seems to be evident in some of the school demonstrations we are witnessing.

I would suggest that those young people who demand the security of amnesty before they challenge "the establishment" lack the moral courage to be leaders. Such firebrands already are burned out and cannot overcome the discouraging odds that earlier Americans overcame to attain their once Impossible Dreams.

Campus protests may reflect and dramatize student concern regarding "assembly-line" education and lack of individual attention and identification. However, through "free speech" and "civil rights" disguises, campus protests now are retrogressing to the libertine ways of students at Oxford College five centuries ago. There is nothing new in anti-disestablishmentarianism.

You're all familiar with the opening lines of Charles Dickens' "Tale of Two Cities." I find comfort in them, particularly when I relate alternate lines to alternate sides of what we euphemistically call the "Generation Gap."

"It was the best of times;
It was the worst of times;
It was the age of wisdom;
It was the age of foolishness;
It was the epoch of belief;
It was the epoch of incredulity;
It was the season of light;
It was the season of darkness;
It was the spring of hope;
It was the winter of despair;
We had everything before us;
We had nothing before us;
We were all going direct to Heaven;
We were all going direct the other way."

Today we are encountering a similar dichotomy of discovery and obsolescence, of idealism and cynicism, of dedication and despair and these moods pose a challenge to all segments of our society and economy. Education should be the key to meet such challenges--and it is my hope that mature idealists, such as many of us in this conference, can make impossible things happen.

It is our task, our responsibility and our opportunity to help make the Impossible Dreams of youth come true. This is our calling for the 70's.

Remarks
of
Dr. H. I. Willett
Superintendent of Schools - Richmond, Virginia
concerning
"The School's Role in Cooperative Occupational Education"
Before the
National Conference on Cooperative Vocational Education
Minneapolis, Minnesota
February 26, 1969

There is too much visibility of American affluence for any segment of American society to accept hunger, poverty and unemployment as a natural and acceptable state. The ability of an individual to share in the good life that is becoming the goal of every American relates to the quantity and quality of education that has relevance for living successfully in today's world. If education is to be relevant to today's needs, it must include certain basic educational knowledge and skills plus preparation for entering and progressing in the world of work. This means that the school must satisfy this requirement by attempting to meet the needs of all youth in a variety of innovative ways.

The problem carries a challenge but it must be approached with an urgency that recognizes the complexities that have been produced by a number of factors.

I

1. The Rapidity of Change and Its Effect on People

- 1) More change has taken place in the past 50 years than has taken place in all previous time since the world was created.
- 2) Ninety per cent of all the scientists who ever lived are alive and at work right now.
- 3) Two-thirds of the products that we will buy in 1980 have not been thought of yet.
- 4) Fifty new nations have come into being since 1950.
- 5) One-half or 50 per cent of the children now in the sixth grade, in 1980 will be working at jobs that are not now in existence.
- 6) Two-thirds of the people in the world have a per capita income of only a few hundred dollars per year, and about one-third of the population of the world has a yearly per capita income of less than \$100.

- 7) Fifty per cent of the world's adult population or about seven hundred million persons are illiterate. Of the world's adult population, only about one-half attend school. This has strong implications for the free world as we try to sell the developing countries on the concept of "freedom with responsibility."
- 8) One hundred developing countries lack mass media to keep the population informed. Three-fourths of the world's books are produced by ten countries, and 70 per cent of all translations are limited to four languages: English, French, German, and Russian.
- 9) Perhaps this whole picture can be placed in perspective by making a comparison of the job requirements and the educational requirements of 1930 as compared with the estimated requirements of 1970, as shown by the following table:

TABLE OF OCCUPATIONAL TRENDS AND EDUCATIONAL REQUIREMENTS
U. S. Labor Force - 1930 and 1970

LABOR FORCE

	Unskilled	Semi-Skilled	Skilled	Clerical and Sales	Semi-Prof'l	Man-ager'l	Prof'l
1930	32 %	25%	10%	15%	4%	8%	6%
1970	5 %	21%	12%	20%	20%	10%	12%

*Note: This semi-professional percentage includes technical labor force.

EDUCATIONAL REQUIREMENTS

	Grade School or less	High School or Vocational	Junior College Technical Institutes	College
1930	58 %	32 %	--	10 %
1970	6 %	26 %	50 %	18 %

Data in this table taken from presentation of Norman C. Harris, Professor of Technical Education, The University of Michigan, to the SREB Legislative Work Conference, Williamsburg, Virginia, August 28, 1964.

- 10) Dr. Richmond Bellman, mathematician at the Rand Corporation, predicts that 25 years from now two percent of our population will be able to produce all the food and goods that the other 98 percent can possibly consume.

2. The Explosion of Knowledge

The explosion of knowledge that is now taking place has important meaning for the school program. Someone has estimated that knowledge doubled between 1700 and 1900; that it again doubled by 1950 and again in 1960; and it can be expected to continue to double about every ten years. Someone else has expressed the disquieting thought that a person entering college as a freshman knows a higher percentage of the total amount of knowledge than he can expect to know when he graduates.

This increase in knowledge has strong implications for us. The first point refers to the selection of information and curricula content. It is increasingly difficult, if not impossible, to offer survey courses that give even a realistic glimpse of all of the knowledge in a particular field and expect such survey courses to be taken by all pupils. The increase in knowledge means, then, that we must be more selective in the materials to be given to all pupils and more selective of materials that must be given to selected pupils.

3. The Population Explosion and Urbanization

In 1965, 60 million Americans, or over 31 per cent of the population were less than 15 years of age. When Thomas Jefferson founded the University of Virginia, only about 10 per cent of our people lived in cities and towns. Today about 70 per cent live in cities and towns. By the year 2000, five out of every six Americans will be city and town dwellers. They will occupy a relatively small geographical area representing about two per cent of the total land of the United States outside of Alaska.

Dr. Roger Revelle, Director of the Center for Population Studies, Harvard University, in a speech before the American Association of School Administrators, had this to say:

"It will mean that our government and our country in the future will be essentially a league of cities, of city-states, like the Athenian League at the time of Pericles, but these cities will be of monstrous size, unlike anything the world has ever seen---giant urban complexes, which have been called 'megalopolises.' One might be called 'Atlanticopolis;' it will extend from Portland, Maine to Richmond, Virginia - a continuous strip city."

It is evident that by the year 2000 we will have a world population of at least 6 billion, which will represent one-half the people that have lived since the beginning of recorded history.

It must be recognized that perhaps the Number One domestic problem facing the country at this time is associated with the concentration of a high percentage of our disadvantaged in the central cities of America. This concentration has produced a situation where those requiring the most services are the least able to pay for those services. Such a concentration of poverty, frustration and unemployment threatens the safety, security and economic well-being of this nation. The cities that used to be the citadels of wealth are now, in most cases, close to the brink of bankruptcy.

This flight to the cities on the part of those with few skills and the flight from the cities of those with more skills and better educational opportunities is in part the result of the dramatic change that has been taking place as we have tried to adjust to the transition from an agricultural society to the electronic and computer age.

WHY ARE COOPERATIVE OCCUPATIONAL PROGRAMS OF IMPORTANCE?

1. With the high degree of specialized training that is required in today's society, it is no longer feasible for the schools to provide all the shops and laboratories that are necessary for occupational training.
2. A closer partnership between the schools and the occupational world is necessary in order to maintain the proper relevance of training and the basic subjects to support the occupational training provides the greatest motivation when the individual can see the relationship of his educational training to the job that will support him and his family in the years ahead.
3. In most occupational fields there are many levels of training which can best be met in a cooperative enterprise. These levels of training relate, of course, to the needs of society and also to the ability and interest of the pupils that must be served.
4. The partnership approach offers avenues of involvement and planning between the schools and the business interest, which can be most

helpful in maintaining programs that are relevant. This approach also affords an excellent opportunity for the schools to gain greater support for the school programs.

5. The cooperative approach also has strong implications for staffing the occupational program. It is very important for a teacher-coordinator to understand the school program and also to understand the general techniques and requirements of the occupation. On the other hand, it is increasingly difficult to secure teachers with the educational background who possess the current skills to teach a specific occupation.

Under the cooperative program, it is possible to select a teacher-coordinator who will be supervising and coordinating the work of technicians in the occupational field. This cooperative approach more nearly resembles the technique used by the Armed Services whereby one professional may be supervising dozens of technicians who are working directly with the students. This plan enables the students to receive more individual help than is normally possible in the typical school occupational shop.

A cooperative program of occupational education must be designed to meet the needs of all pupils ranging from slow learners and retarded, who may have to work in sheltered workshop situations, to those students who will go from high school on to continued training in college. In meeting this wide range of occupational demand, the school could never hope to provide activities to meet all these needs within the framework of the school organization itself.

This contact with the business world is not only essential in developing a specific skill but it also has an important guidance function in enabling youth to gain a better understanding of the occupational world that makes it possible for them to select more intelligently their field of work.

III

BRIEF DESCRIPTIONS OF CERTAIN PROGRAMS AND PRACTICES THAT EXIST IN THE RICHMOND PUBLIC SCHOOLS

In presenting certain programs and practices in the Richmond Public Schools, the purpose is not to suggest that this particular city has adequately met even the majority of its problems or fully accepted the many challenges that face school systems today. However, it is the

program that the writer knows best and which may serve to stimulate discussions both in terms of what is and what is not being done.

Time, of course, will not permit a discussion of all programs, but hopefully a few of the more innovative approaches can be described in the field of cooperative occupational education.

Let us look first at some of the cooperative programs that are more typical in the regular comprehensive high schools.

Distributive Education (DE)

The community is beginning to recognize the fact that the field of distributive education is very closely related to what many pupils are going to do in the occupational world since 43 per cent of the labor force in Richmond is employed in the areas of distribution and services. However, only 11 per cent of the total school enrollment in grades 10 to 12 were in distributive education last year but this does represent an encouraging increase over the enrollment of five years ago.

Approximately four thousand adults enrolled in distributive programs last year and approximately two hundred fifty students are enrolled in the junior high school program which is offered for the first time this year. The program is being offered this year as a pilot study. Its success, however, suggests that a very large enrollment is projected in the junior high school for next year. It is important to reach some youth at an earlier age and this particular program on the junior high school level offers a very encouraging opportunity.

The greatest need in distributive education is for program expansion especially in the areas of programs for out-of-school youth including those with special needs.

Distributive education is a fine example of cooperative instruction, requiring the joint interest and efforts of the schools, the distribution industry and the community. All three benefit thereby: the schools by providing meaningful instruction, the employers by obtaining more efficient personnel and the community through better consumer services and more prosperous, efficient businesses.

There are many specific goals described in the program but there are three major goals:

- * provide an educational program for all the citizens in the Richmond area from ages 14-90

plus, who can benefit from training in marketing and distribution

- * prepare individuals for employment in the field of marketing and distribution
- * encourage individuals to continue their education

Vocational Office Training (VOT)

Another program that is based in the comprehensive high school is called the "Vocational Office Training Program." (VOT) In most states, however, this program is referred to as "Cooperative Office Education." (COE)

The program is under the direction of a "VOT Coordinator" who must be a certified business teacher with a minimum of two years teaching experience and 480 hours of on-the-job office experience before qualifying for the position. This person usually teaches three classes and has the rest of the time for locating and selecting desirable work stations, evaluating the student on the job, consulting with employers, making community surveys, making and using job analyses, establishing and maintaining parental consent, preparing related instructional units, and interpreting the VOT program to the community, faculty and student body.

The primary goal of the VOT program is economic productivity for all students who will not be going on to formal education. An important secondary goal is the acquiring of skills and knowledge which will enable the student to obtain a part-time job as a secretary, bookkeeper or office clerk while enrolled in college to help the student defray part of his expenses.

One of the weaknesses in this program has grown out of the fact that adequate cooperative training has not been provided for the low ability business student. An attempt to correct this situation is directed toward moving into what is called "New Curriculum Patterns for Office Occupations Education." These fall into five main occupational training patterns: Stenographic and Related Occupations, Clerical Accounting and Related Occupations, Data Processing and Related Occupations, Typewriting and Related Occupations, and Curriculum Patterns for Youth with Special Needs. These programs are designed to provide education in skills and concepts common to clusters of closely related office occupations. The relevancy

to cooperative education is that all cooperative business students will no longer be in one single VOT class at the 12th grade level, with diverse office career objectives.

A cooperative work-study class for youth with special needs is now in the developmental stage. This program will be initiated in the next school year. The class title is "9 Clerical Services" and it will be a two-hour block of time in which ninth and tenth-grade low or under-achievers will be enrolled. This pilot class approach will get cooperative office education down to the lower grade levels where the potential dropout may be saved.

This might be as good a place as any to point out the importance of teacher attitude and teacher expectations for the disadvantaged. The following quotation was taken from Business Education Forum (original source footnoted as: Rosenthal, Robert, and Jacobson, Lenore. "Teacher Expectations for the Disadvantaged." Scientific American, April, 1968.)

"Most business teachers come from the middle class and neither understand nor have empathy for their inner-city students. They anticipate poor performance and thus teach students to fail. In a recent research study teachers were told that test results of certain students indicated that they could be expected to perform exceptionally well. Actually the students named were selected by random numbers and had not shown superior potential on verbal and reasoning tests. The experimental method involved nothing more than giving their names to their new teachers as children who could be expected to show unusual intellectual gains.

"At the end of four months, at the end of the first year, and at the end of the second year the entire group was retested. The students expected to spurt showed significant gains in intelligence over the nondesignated children. Even more important, though, is the perception of their development by their teachers. They thought that this supposedly superior group developed greatly in social skills. The teachers perceived the other group as growing steadily poorer in social skills. The more its members actually gained in intelligence, the less favorably they were rated by their teachers. They were designated as not well adjusted, less appealing, and less affectionate than the students labeled superior.

"The researchers suggest that inferiority in education accomplishment lies not entirely in the child and in his environment; that at least some of the deficiencies may be in the attitudes of teachers toward children from disadvantaged backgrounds."

Cooperative Work Training Programs

The "Cooperative Work Training Program" offers opportunities for students interested in industrial education. These programs were originally

known as the "Diversified Occupations" (DO) They are now known as "Industrial Cooperative Training Programs" (ICT) Students work in cooperative programs such as baggage handling, building maintenance, cooking and food service, meat cutting, draftsman, photo engraver, audio visual repairmen, mechanical production workers, telephone operators, industrial laboratory aides, stockroom operators, and cosmetology.

The ICT program can meet a real need in the community by providing supervised work experience for those boys and girls desiring to enter an industrial type occupation.

Students are admitted to the program in a manner very similar to the DE and VOT programs. They work in various industries and are paid on an hourly basis for the work performed. Many of these students find permanent employment with the same company or employer for whom they worked while under the ICT program. This is also true of both the DE and VOT programs.

SEVERAL SPECIAL PROGRAMS

Vocational Rehabilitation

One of the most encouraging and innovative programs has been developed in cooperation with the Virginia Department of Vocational Rehabilitation through its cooperative agreement with the Richmond City Schools. This program includes between eleven and twelve hundred students who have emotional, physical or mental handicaps that relate to their future employment.

Each pupil has or will have an individual plan of action drawn up for his future by him and his counselor. This plan may be for a college education or a kitchen helper's job at a cafeteria. The plan depends upon the ability interest, work capacity and motivation of the student.

In order to be served, a student first must be referred to vocational rehabilitation by the school. After referral, a rehabilitation counselor interviews the client, refers him for diagnostic medical, psychological and vocational information. The family is contacted and plans are formulated for the student.

The vocational rehabilitation counselor works with the business community to secure the best job or on-the-job training for a person of his client's talents. This may involve reimbursing the employer so that it is worthwhile for him to give the client the needed supervision in his initial

job placement. The placement may come as a result of the counselor making plant surveys or may be the result of counseling the student as to the proper attitudes and ways of doing a job interview. Many techniques are used as the condition seems to warrant.

The program for the Richmond City Schools is made up of three units:

First, the Basic Unit receives referrals from all junior and senior high schools. The counselor may have any client with any type of disability on his caseload.

Second, The Richmond Trades Training Center Unit provides evaluation for, training in, and job placement for specific areas of employment. At the present time these include barbering, cosmetology, health services, food services, woodworking, painting and decorating, welding, commercial sewing, and shoe repair. Other services are soon to be added. This program is housed in two specific centers, one for boys and one for girls. Part of the laboratory work is carried on at the new Richmond Technical Center. The strength of such a program grows out of the fact that large blocks of time in laboratory and related activities can be specifically directed toward one trade. For example, in the food service the arithmetic problems have to do with units of measure, reductions or expansions of recipes, cost of food items, and an attempt is made to keep everything relevant to the trade that the student is preparing to enter. Furthermore, the program provides great flexibility in activities. These students do not expect to earn a high school diploma; therefore, emphasis can be placed where it can achieve the greatest result in terms of the interest and ability of the student. Some students work one-half day and attend laboratory exercises at school for one-half day, or attend related instruction for one-half day and then go to work. The needs of the individual determine the program.

This program is in its infancy and there are problems of supervision of students at a great variety of locations. The age of fifteen is rather young for some students to make this type of choice relating to his future; however, the flexibility of the program means that these students can still earn a high school diploma if their interest and achievement level so indicates. If such a program is not started early with youth, they drop out of school before they become eligible to enroll.

Third, the Operational Rehabilitation Training Unit (ORT) has as its goal to reach dropouts and youth who are not succeeding in an academic environment. Training areas have been identified within the Operations Department of City Schools in which there is a great demand from the local labor market for employees. These areas include furniture repair and refinishing, custodial services, painting and decorating, outside building and grounds maintenance, nurses' aide, cafeteria floor girl, and the servicing of automobiles. In this last connection the school system operates a filling station in which filling station attendants are trained.

These programs are designed to reach dropouts and potential dropouts who normally will not complete high school. They will be put through a specific training program with related basic skills. As soon as they have been trained for a particular job they are passed on to the job counselor, who then follows the young employee on the job in order to give further assistance and to evaluate with the employer and the employee the success of the program.

The first commencement exercises of the Operational Rehabilitation Training Program (ORT) was held at the Richmond Technical Center on Friday evening, January 24, 1969, at which time 109 certificates were awarded to those pupils who had qualified for certificates of achievement in six areas of training which were custodial maintenance, food service, health aids, horticulture, service station operation, and woodworking.

Richmond Technical Center

Reference should be made to a new technical center that has been opened this year and which has some implications for the cooperative education program.

This center is under the operation of the Richmond School Board but serves students from 20 high schools in the metropolitan area. At the present time there are some 20 programs which include: commercial sewing, sheet metal work, welding, radio and television electronics, printing trades, practical nursing, plumbing and pipefitting, masonry, machine tool trades, industrial electronics, industrial drafting, heating-air conditioning-refrigeration, diesel engine mechanics, commercial foods, commercial electricity, cabinet making and millwork, automotive mechanics, archi-

tectural drafting, automated data processing, appliance servicing, auto body repair, with uncommitted space for the development of still other programs to meet the needs of the community.

The building has a maximum capacity to serve one thousand students at a given time. It serves one group of students in the morning and another in the afternoon, which, of course, makes a capacity of two thousand students in the daytime program plus an equal number of adults in the evening program if two shifts are operated. In fact, some programs are operating on two shifts for adults as well as for students.

The daytime program is designed primarily for students in the last two years of high school. A given student spends one-half day in his regular school and one-half day at the center. A plan is now being developed whereby students may transfer from the laboratory in the center to a cooperative program in business and industry. Or, a student may have completed high school and continue specific training in the technical center on a cooperative basis with business and industry.

The feeling has developed already among the staff at the center that a number of students have progressed satisfactorily during this first year to the point that next year some of them can profit most from on-the-job experience. The 1968 Amendments to the Vocational Act should serve to implement this program.

Potential employers have been contacted and they expressed considerable interest in a cooperative arrangement whereby the student can work part-time two, three, or four days for an employer and then come to the center for the remaining days of the week. The 1968 Amendments provide financial assistance for an employer if he is unable to pay the minimum hourly rate for such students. However, the employers who have been contacted feel that most of the students will be able to earn the required wage.

SUMMER PROGRAMS

Project Build

The creation of Project BUILD in the summer of 1968 was a constructive action taken by the Richmond Public Schools in its attempt to remotivate the high school dropout or potential dropout. The program was developed to help the young people help themselves to a more rewarding school

experience than many of them had known. The program was carried out under the authority of the National Elementary and Secondary Education Act of 1965, and was conducted at six high schools within the city, and therefore, divided into six separate projects as a center for individual BUILD groups. Each of the six groups consisted of 50 enrollees and seven staff members. The staff of each program had a coordinator or supervisor. Working with the coordinators were three professional teachers who were responsible for classroom activities and supervision in general. Assisting the teachers were three aides, (for the most part these were successful college students) who helped enliven work and study projects and served as a buffer between faculty and students. To supervise the six projects and maintain a unity among the participating schools, a chief coordinator directed the city-wide program.

Each staff sought to combine work, study and recreation into a united program. A primary concern was to financially aid the students. Therefore, a program of work was set up within each school or nearby community. The students engaging in the work were paid \$20 per week for their useful services. Because the enrollees worked for money, they were constantly reminded that this was not a handout. However, the remunerative aspect of the program served as an inducement for dropouts to return to school.

The students in the program took a number of field trips to places of significant interest throughout the city, state and nation.

A great deal of emphasis was placed on having the pupils involved in the selection of both work, study and recreational activities.

The program had strong implications for better racial understanding since there were a variety of activities that brought the youth together from the various school centers particularly in recreational activities and in a culminating project which brought all of the youth together for a final exercise including a dinner.

The students spent much time in discussing topics that were current for them on both a local, state, and national level. The work on school and community projects helped to develop a responsible attitude toward school and community.

The program was deemed to be an outstanding success and many things were learned that will enable a still better program to be developed in succeeding years. The program also had strong implications concerning

what can be done in motivating youth. The teachers who worked in this program will perhaps never be the same again as they work with youth in their classes.

Richmond Chamber of Commerce Job Program

Another summer program has received national attention. This was a cooperative program worked out with the leadership of the Richmond Chamber of Commerce and included the Richmond Community Action Program, the United Givers Fund Agency, the Richmond Area of Community Agency, agencies of the city government and the Richmond Public Schools. The Richmond Chamber of Commerce provided jobs. One of the unique aspects of the program was that five youths held one job. Each youth spent one day on a job in the community for which he was paid by the business or industry, and one day working in the community in a service capacity as he rendered service to a nonprofit organization, public improvement or needy individuals. He was paid for this day's work out of OEO funds. This made a total of two days for which he was paid and which gave him an income of something over \$25 per week. One day was spent in recreation; and two days were spent under the supervision of the schools in a variety of educational activities - but it was not school in the usual sense.

Here again the youth played a big role in determining their educational activities and perhaps the people who learned the most from this program were the teachers who developed an awareness of the fact that youth who had been considered hopeless could achieve when properly involved and motivated.

The culminating activity was a graduating exercise in which the youth took part in a commencement exercise at the City Auditorium (Mosque) where some eleven to twelve hundred youth received certificates of achievement. A member of this group made one of the speeches at the commencement exercises and, without the use of notes, he made the best speech that was given which included speeches from the Mayor, the President of the Chamber of Commerce and the Superintendent of Schools.

The work of these youth and their generally fine performance have done as much as any one single thing to show to the community what can be done with the disadvantaged.

One of the business concerns which employed approximately 100 of these youth kept a record of their attendance and punctuality, and found that these disadvantaged youth had a better record than their regular employees.

It was interesting also to note what happened to the dress and general conduct of these youth as they observed their colleagues in the places where they were working.

The program was determined to be an initial success but this is not to suggest that all youth were reached or that the program does not need improvement. It was developed too late to have as careful planning as was necessary. The coordinator of the program for last year has already been released from his duties in the school system and is now working with the schools and community in developing what is hoped to be a considerably expanded program for the coming summer.

IV SOME LESSONS FROM EXPERIENCE

Many important lessons are being learned from these programs that have strong implications for the total school program as they relate to how youth learn and how they are motivated.

In the first place, the individual approach is essential. Programs must be designed in which youth can proceed at their own rate. It is important to utilize more of what is known about basic learning, not only as it applies to cooperative vocational training but as it applies to the total school program.

The program of vocational cooperative education is handicapped by the eggcrate scheduling that still is present in most American high schools including Richmond.

There must be much greater involvement of youth, parents, teachers, and the community in developing cooperative programs.

Have schools really been organized to meet the needs of all youth?

The use of paraprofessionals offers a great resource not only for the help that they give to the professionals but also for their ability to establish rapport and better communication with the disadvantaged youth. It is also significant that the paraprofessionals working as aides and in other capacities become highly motivated to improve their own educational qualifications.

V
ADMINISTRATIVE ORGANIZATION AND DESIGN

In order to implement the kind of program that will meet the needs of all youth, consideration must be given to the administrative organization and design required in a school system that will provide such a program. It has been suggested that some consideration be given to administrative design for a city of approximately three hundred thousand population. What is proposed here is more or less traditional in design, which should serve for discussion purposes, with particular emphasis on the part dealing with vocational education.

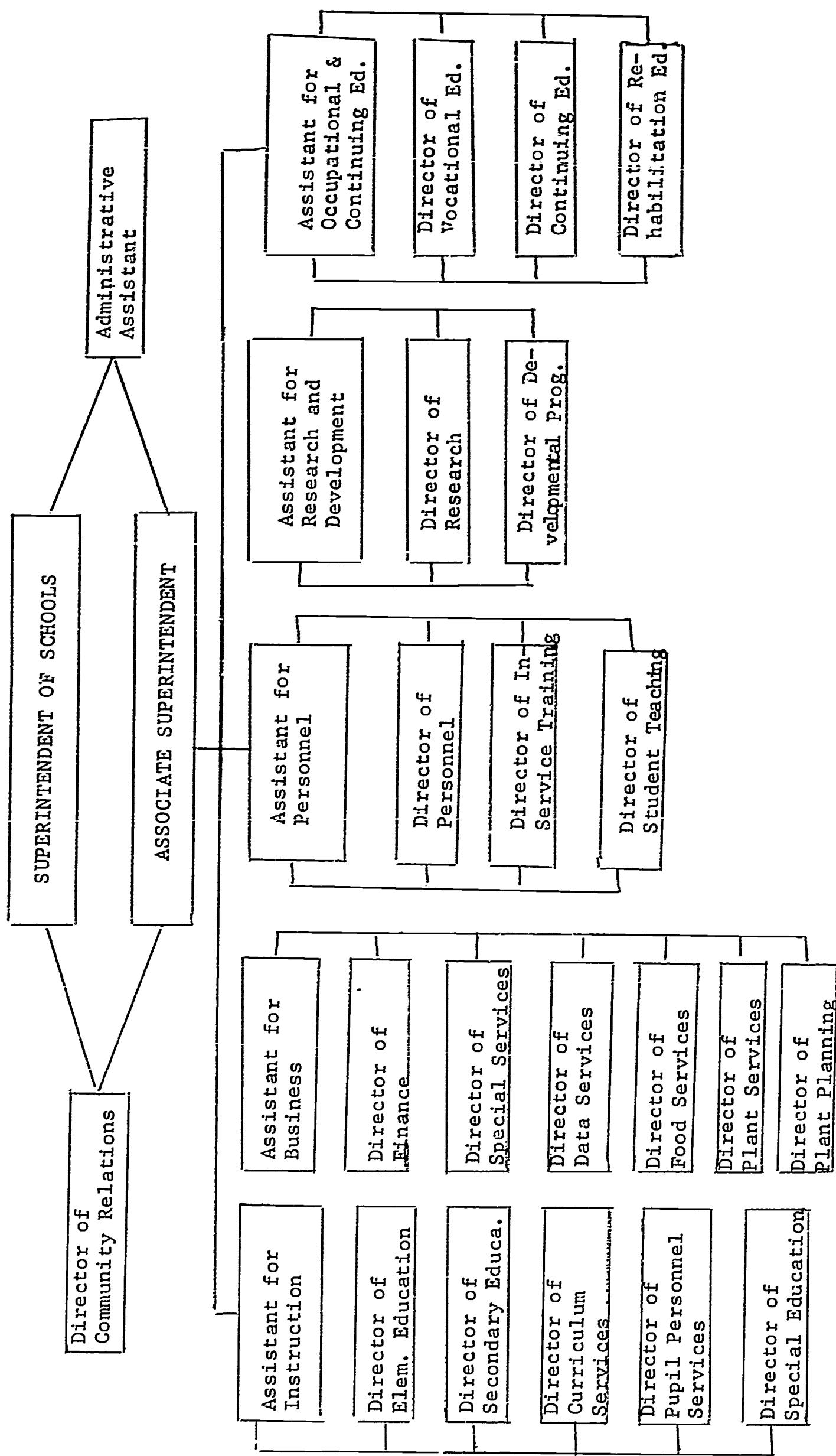
Still unresolved is the problem of coordination between vocational education and the rest of the school program.

This chart includes an assistant superintendent for instruction and an assistant superintendent for occupational and continuing education. These administrators will need to work very closely together. The superintendent and associate superintendent will need to give some overall coordination.

The primary job of the person in charge of the total vocational program would be to coordinate activities with the rest of the services in the school system. Vocational programs are too much fragmented at the present time. In vocational education, programs are still confined too much in little compartments that are almost as unrealistic as the high school scheduling that is still maintained. There is need for larger blocks of time and more concern with the relevance of curricula content and teaching techniques to the needs of youth in today's world.

Too little is known about the psychological workings of the mind, but there are some interesting developments in physiology that have strong implications for the schools particularly as they concentrate on problems of poverty.

Recent studies suggest that the absence of amino acid in the diet of the mother and early life of the child will cause defects in the development of the brain cells that cannot be corrected at a later date. For example, it is known that the child's brain develops to 80 per cent of its normal size in the first three years of the child's life whereas his physical body develops to only 20 per cent of its normal size in this same time.



Some interesting experiments are being carried on in the use of protein substitutes. Products from soybeans resembling steak, chicken and other meats have been developed; and a corn impregnated with amino acid has been developed to be used as a meat substitute. These new developments suggest that the effects of undernourishment in the early life of the child may be one of the most serious factors affecting his potential intellectual, social, and vocational development.

VI

PLANNING - COORDINATION - EVALUATION

What is the relevance of basic education to the needs of the child in the cooperative program? Some children can learn through-practical application what they cannot learn in theory and this applies specifically to the disadvantaged child and to what he may achieve through a cooperative occupational enterprise.

Part G of the Vocational Amendments of 1968 can have great implications for the development of cooperative programs if the necessary funds are made available and if a breakthrough is made on the shackles of regimentation and fragmentation. The best thinking of school people and the business leadership must be involved in taking an innovative approach in seeking better solutions to many of these problems. It is time for all educators, and particularly those interested in various aspects of vocational education, to really put on their thinking caps as to how the resources set forth in Part G of the new act can best be used to serve the youth of this nation.

There must be continuing dialogue with the youth served by the schools. For example, during the past two years Richmond has had a rather intensive program directed at the dropout and potential dropout. In order to keep close to this problem, the writer attempted to meet at each high school with those dropouts who had been persuaded to return to school. These discussions produced some very helpful results. Some of the programs that were initiated have been the result of suggestions made by these dropouts. For example, discussions included such problems as:

Why did you drop out of school?

Why have you returned?

Imagine that you were Superintendent of Schools, what would you do to change the program of the school so that it would be more appealing to those students who are now dropping out?

What can the community as a whole do to build fences against the developing youth hostility that is found in so many places throughout the country?

Perhaps the most rewarding part of these sessions was to have a dropout come up to the Superintendent and say: "You will never know, Mr. Superintendent, how much it means to us that you care enough to come here and talk with us about these problems."

A part of our responsibility is to develop programs that have meaning for all youth in which they can see some purpose. This does not mean that such programs have to be easy, because schools must challenge the best in youth.

None of us have all the facilities and resources that are needed. (Personally I would like very much to have as a resource for the city of Richmond a farm on which there might be a resident school providing a combination of work-study experiences for students who could not be kept in the home, and to which might be transported for a day program those students who could remain in the home but who need something very different from what is now offered.)

It must be remembered that there should be only two exits from school - into a job and on to continuing education.

Before the problem of the disadvantaged or the school dropout can be solved, they must be helped to create images of themselves in which there is ambition and a willingness to work to achieve goals that are realistic for them and in which youth can establish their own identity.

There is perhaps no resource in the school that offers a greater challenge and opportunity for certain youth as cooperative occupational education, because a youth must find himself in relationship to his job and in relationship to his responsibilities to his community.

I would like to close with a quotation from James Michener's Fires of Spring:

For this is the journey that men make: to find themselves. If they fail in this, it doesn't matter much what else they find. Money, position, fame, many loves, revenge are all of little consequence, and when the tickets are collected at the end of the ride, they are tossed into a bin marked Failure. But if a man happens to find himself--if he knows what he can be depended upon to do, the limits of his courage, the position from which he will no longer retreat...the secret reservoirs of his determination, the extent of his dedication, the dedication, the depth of his feeling for beauty, his honest and unpostured goals--then he has found a mansion which he can inhabit with dignity all the days of his life.

Remarks
of
Marvin J. Feldman
Program Officer, Ford Foundation, New York City
Before the
National Conference on Cooperative Vocational Education
Minneapolis, Minnesota
February 26, 1969
concerning
"The Community Role in Cooperative Vocational Education"

Ladies and gentlemen, members of this conference, thank you for inviting me to be with you today. By this time most of you here are committed to cooperative education one way or the other. Surely you know that the Higher Education Amendments of 1968 also added a new part to Title IV of the Act, authorizing grants to institutions of higher education for the planning, establishing, expanding, and carrying out of cooperative education programs which alternate periods of full-time academic study with periods of full-time public or private employment and which give students both financial assistance and work experience related to their academic and occupational goals. This is intended to be used also by community colleges, technical institutes, and other urban post-secondary programs. This is in addition to the Vocational Education amendments of 1968.

Most of us agree that cooperative education is a significant means of aiding low-income students meet the cost of higher education. This is beneficial not only to the individual but also to the nation, with its increasing need for well-educated people. Moreover, all of you have heard and I am sure agree that by coordinating work experience with the campus educational program, theory and practice are more closely integrated, and students find greater meaning in their studies. The stimulation provided by a cooperative education experience improves student motivation and develops greater interest in academic work.

A distinct advantage of cooperative education, particularly in this era of rising costs for higher education, is that institutions can utilize staff and facilities much more effectively. Another advantage to the stability of the academic program is that the attrition rate of coop students is less than that of comparable non-cooperative education students.

Another interesting sidelight and value of cooperative education not very often mentioned is that institutions with programs in cooperative education are especially well-equipped to prepare students for new and emerging careers in technology with some assurance of gainful employment after graduation. This also yields an infusion of young blood in the mainstream of government, industry and business at an earlier date than would otherwise be the case. In addition, a vital partnership is developed between industry, government, business and institutions of higher education working together for the best interests of the nation as a whole.

But having said all this, and I know you have heard this before, I want to talk about cooperative education with the sense of urgency that may not have been made clear.

The issue facing us in education this year is the incidence of serious growing interracial and intergenerational conflicts in high schools, colleges, and universities across the nation. In an increasing number of communities, white students and black students, black students and white educators, or just plain students and educators, have engaged in disruptive, sometimes violent, and often nonresolved forms of social conflict. Close to half of all recorded civil disorders in 1968 involved schools. Even where violent outbursts have not occurred, serious alienation from learning and mutual distrust have characterized contact and interaction in too many schools at all levels in the nation.

While at times the tensions in the schools are promoted by factors in the local and national community, often the roots of these problems are within the school itself, in the curriculum, in the administration, and the very tasks the young are required to complete as part of schooling.

The resulting administrative postures of instituting repressive school or police controls, of expelling students, of surrendering the school to chaos, are examples of how little we are able to recognize what are probably the main causes of school unrest.

In the first place, let me start with the perspective that these situations are not entirely hopeless and that some means of preventing, managing, building from, or responding to such crises may indeed be developed through techniques now used in cooperative education.

There may be some policy alternatives for local schools, colleges and universities to relate with other social formats of the larger community,

public service, the civil service, industry and business. Some universities are now beginning to provide technical assistance programs for conflicts that appear to be between racial groups of students. These conflicts seem to develop from community tensions and structures, from students' ignorance of each other, as well as from racial fears and hostilities. This kind of conflict usually occurs in the high school because such institutions sometimes provide youngsters of different races and community subgroups with their first sustained competitive contact.

Another major context for conflict lies in the relations between students and teachers, or between students and administrators. Sometimes this, too, appears to be a racial event, in many racially mixed schools there is a higher percentage of black students than black teachers. Nevertheless, the major issues may not be interracial but intergenerational, particularly at the college level. In any event, both in the high schools and colleges, youngsters are now in the process of confronting the maintenance, direction, and degree of adult control and what is to them low-quality and obsolete school experience. In mixed schools at both levels of education where whites are in the majority, we find black and white students uniting in actions directed against school officers.

A third area of school conflict deals, of course, with the issue of community control. Here the crisis centers around the demand for accountability. The publics in conflict here depend at the level of the school and the issue behind the accountability. At the secondary school level, the publics in conflict are teachers and parents. In this situation, the administrators join with the teachers and students with the parents. At the higher education level very often faculty join with students against the administration, and even now there is beginning to be a breakdown in the points of view of the various administrations--state, board, trustees, deans, department chairmen, and faculty.

As for myself, I have a very simplistic view about the causes of conflict in education, and I would argue that the fundamental issue behind the crisis is in the curriculum and in the format of public education to which cooperative education has an important message to deliver.

Students are supposed to want to go to school and want to absorb both the cognitive and behavioral inputs desired by the larger society. Students in the system may be in school only because there is nothing better for them to do. Some of these students might be able to complete the tasks they are required to do in school but reject the system for lack of relevance. Others may want to accept the current requirements of schooling but have difficulty in their learning performances and therefore reject the system. On the one hand, it is clear that different youngsters learn in different ways; thus rewards and punishments used by adults and schools must be somewhat flexible in order to be successful in encouraging different students' motivations to learn. At the same time, faculties must respond realistically to the potential chaos of large numbers of students in a course that might not be of intrinsic interest to them.

For these reasons, and others, I want to discuss a model school system from a point of view that relates the new cooperative education bill with the amendments to the Vocational Education Bill, now called the Vocational Education Act of 1968, because the total impact of recent legislation will be a new awakening to the historical role of American education to consider learning and earning as a right for all American citizens.

A Way Toward Educational Renewal - A Model School System

Serious alienation from learning has become a common characteristic in education. During the past year we have seen serious boycotts, protests, riots and violence in the public schools throughout the nation.

The Lemberg Center for the Study of Violence reported that in the first four months of 1968, "44 per cent of all recorded (civil) disorders involved schools...(and) there has been a three-fold increase over the entire year of 1967."

While at times these tensions are responsive to, or promoted by, factors in the local or national community, more often than not, the roots of such conflict are found in the school itself, in the curriculum, in the internal classroom operations, in the tasks our students are asked to complete.

This more recent social history of public schools has highlighted the fact that, as good as our public schools are, still not enough youngsters are being helped to overcome their divergence in environment, experience, and background and to use the differences in skills, motivations, concerns, and interests that grow out of life in different families in different parts of the country; we are more different in how we learn than alike.

The very highest priority in education today is a search for ways to renew our public schools and ways to plan such renewal.

The magnitude of the problem is staggering. Consider these figures: we have over 122,000 institutions of education in this country, from elementary schools through universities. We have close to 22,000 independent school districts. We have nearly 58 million students enrolled in educational institutions at any one time. These 58 million are served by close to 3 million teachers and 210,000 administrators. Our nation spends over \$50 billion a year for operating expenses and it has a current capital outlay of over \$8 billion.

The entire educational system is based on the notion of equal educational opportunity with the major effort given toward programs leading to college degrees, despite the fact that well over 40 million of the 58 million students will not graduate from college. At the same time, when alternatives to college preparatory programs or university degrees are offered, they are rejected and misunderstood by both the managers and consumers of American public education.

The community of educators is well aware of its failure, and, in this context, through Federal aid, four efforts are underway to restructure and renew education.

-- Expanding, at all levels, educational opportunity for the poor.

-- Maximizing the effectiveness of education by tailoring it to the individual.

-- Improving educational techniques, especially teaching procedures, through nongraded programs.

-- Expanding programs in vocational education.

But these recent efforts in education have mainly failed. They have failed because they are at bottom peripheral; they have been placed in a crumbling model of education whose basic strategies are out of date, out of touch, and out of balance.

An education program today must have "zero reject" as its over-arching goal. No student should be allowed to fail. Moreover schools must be held accountable by students, their parents, and society for the achievement of this goal.

It should also be clear that the school protests we have been witnessing are directed at more than changes in the organization of power. It is apparent that many sensitive educators have not been able to deliver the promise of recent Federal legislation much less their own liberal values in the conduct of instruction. Despite administrative desire to promote individualized instruction, intellectual freedom, autonomy in course selection, the realization of student potential, the promotion of independent thinking, these values have not been sufficiently clarified because of the educators' misguided homage and pursuit of the "Mythical Goddess called Liberal Arts."

When we examine, then, the persistent problems which impede the education of a wide spectrum of our children and youth and relate the honest efforts of our school system to cope with them, it seems reasonable to offer alternatives in educational processes which might logically offer better solutions than those now taking place.

A relatively new comprehensive system might provide a better educational program for more students of diverse ability. This lively renewal of American education could emerge out of vocational education, broadly conceived.

Educators have been too afraid of the word "vocation." They send out students who have the required "courses" to their credit, but no vocational sense. Until now, our schools have been more interested in what happens to the student while he is still in the classroom. What happens to him after he leaves the classroom is regarded as completely his own concern.

The issue of accountability may well have its roots in this attitude.

What follows is offered only as a sample of an elementary - through - college educational program with a suggested community run "back-up" system.

Definitions of Comprehensive Education

But first, it would be well to clarify the various definitions of "comprehensive education."

In some school systems comprehensive now describes any high school program that offers industrial arts, typewriting, and homemaking courses in addition to the usual academic subjects. Industrial arts and homemaking are certainly relevant to education, but they hardly make a school comprehensive.

Other schools, once academic, now call themselves comprehensive because they encourage pupils to seek a work experience. But work experience outside the school program, often on the pupil's own time, unsupervised and unrelated to academic instruction, scarcely earns the right to be called comprehensive education.

Still others ship students by bus to spend half a day each school day in a shared workshop center for vocational activities. The bussing of pupils to a vocational educational center that functions independently of its feeder schools is undoubtedly a convenience for school administrators who are plagued by underachieving students and overcrowding, but it still does not furnish comprehensive education.

The most common of the so-called comprehensive schools is the multi-purpose or tracked school. These schools house, under one roof, three sociologically and educationally discrete schools -- academic, vocational, and general. The multi-purpose schools carry some students on the main tract, where trades, not vocations, are taught, or to the general track, a watered-down version of education which prepares its students neither for a vocation nor the pursuit of higher education.

This track system tends to freeze students within the confines of their class, race, and social group. It denies to all groups the benefits of interaction and shared experiences.

At least half the college-bound students in the tracked schools are as ill-served as the students on the general track because they will begin--but not complete--their college studies. Not only do the schools fail to teach these youngsters skills or give them even the smallest technological understanding of society, but they also deny them the opportunity to rub elbows with the social class and life style with which they may well have to come to terms in the long run.

The tracked school also limits the vocational student's exposure to courses that might enrich his curriculum and his capacity to function well in his chosen vocation or to choose other options as they emerge.

(Actually, it is impossible to study vocational education without realizing there is really no system of vocational education. There are schools of all kinds at all educational levels, but there is no system with a logical progression from school to school and from level to level. For sixty years, vocational education has been confused with practical training required for a job and has been regarded as separate and distinct from "education." It is associated with manual occupations and is thought of as inherently inconsistent with the ideal of higher education for all pupils. We give the students to vocational education when we have given up on them as students. We say that we want vocational education for students who do not have the ability for college rather than using the vocational processes themselves to help develop this ability.)

Secondary school students today must choose between "education for life" or vocational education. However, deep concerns arise when these general terms are translated into school curricula. What exactly do we mean by the term "education for life?" Is there such a thing as "life in general?" A vocation itself is a way of life. Therefore, can "education for life" ignore the concept of one's life work?

Purposes of Comprehensive Education

What we need, then, is a redefinition of the basic aims of education. Short of a full analysis of these aims, we can identify four related but distinct purposes which could be called the definition of "comprehensive education:"

- 1) To identify the talent and learning style of the individual.
- 2) To give him both physical and social knowledge of the world in which he lives.
- 3) To develop the skills the student needs to sustain and advance his life so that he may be a productive and creative individual in society.
- 4) To satisfy the individual's search for his own life values.

There are no separate goals in comprehensive education, but alternative means of reaching the same options. Comprehensive education insures

the availability to all pupils of the same range of knowledge. Through different activities and in different classes, where teaching procedures are matched to learning style, all pupils move at their own pace and in their own way to the same destination. That destination is a multi-option-al jumping-off point to new levels of education and to the work world.

People learn differently. Some do best with the spoken or written word as the main learning process; others by handling tools and materials, others by making charts and graphs along with other graphic arts media; still others through film making and drama. Any of those means, as well as others, might be used to teach any subject, depending upon the pupil's style. Once a pupils' style is identified--and this ought to be in the earliest years because it profoundly affects all future learning--then the style should become a central vehicle of his learning. (By contrast most schools teach each subject in one style; hence they-reach only those students whose style it happens to be. Result: students become branded failures when, in fact, it is the school that has failed.)

If students are not motivated toward the acquisition of adequate education, we shall face an increasing waste of our human resources, continued riots in the streets, and a general deterioration of society. Except for the relatively small number of students who even now do seek learning for its own sake, students will be motivated to learn only if their schooling is relevant to their lives, to their ambitions, and to their styles of learning.

The Need for Relevancy

The essential question is not whether we should merge general and vocational education but rather how we can best exploit vocational education techniques in the interest of effective teaching.

Culturally and economically deprived American students most likely would be the immediate beneficiaries of a comprehensive system since these students, above all others, have been largely untapped by contemporary educational techniques.

But comprehensive education is of value to students whose primary interest may be the liberal arts.

When a youngster is provided with an opportunity to design, to fabricate, to test, and to report on an item, he goes through a number

of behavioral changes not unlike the processes within the liberal arts. The vocational process surely could be used in this way as a great tool in liberating the mind for self-expression.

A basic fault in our present theory and practice of education is the idea that vocational education is a dull body of specific, technical facts and manipulative functions standing apart from humanistic studies.

But if we would be more precise in our definition of training as an instructional function, education as a learning process, and experience dictating the mixture of training and education, the liberating role of vocational education becomes clearer.

To say that vocational education must become the principal core of modern curriculum is to say only that the remainder of the curriculum must be more fully and more consciously related to the place of individual talent in human life.

Liberal education, as we conceive it, should be more than an education for intellectual pursuits and could embrace technical education. An educational program can and should furnish its students with the means to live fuller lives and to have fulfilling, productive careers.

Alfred North Whitehead said this so clearly: "...culture is activity of thought, and receptiveness to beauty and human feelings. Scraps of information have nothing to do with it. A merely well-informed man is the most useless bore on God's earth. What we should aim at producing is men who possess both culture and expert knowledge in some special direction. Their expert knowledge will give them the ground to start from, and their culture will lead them as deep as philosophy and as high as art."

Elementary Education

An effective comprehensive program would begin in elementary school. The development of the individual's personality, the identification of talent, and the acquisition of general knowledge begin here. The only aim of education at this level is to give the child that fundamental knowledge he will share with all members of society and to develop in him the intellectual and social habits necessary for his survival.

While elementary education is general in purpose, it is also very concrete. Children learn by experience--the specific, concrete experience of events, successes, accomplishments, failures, tasks, and joys.

Since such experience is specific, elementary education, despite the generality of its purpose, is more specific in content than education at any other stage. What is now questioned is this specific content and the way it is transmitted to children.

Underlying the entire program of comprehensive education is the concept that intelligence is not fixed. It can be developed by providing the child with enough interaction with his environment, interaction that is relevant to the role of early experience and psychological development. A great deal of learning is based on experience. We must, therefore, create the experience upon which to build the learning. Often we lose sight of the fact that doing is only the beginning. Thinking follows. Feeling follows. Doing is the specific from which later generalizations will follow. And vocational education can contain a high proportion of doing if used properly for comprehensive education purposes.

The processes of vocational education require the student's active participation and will greatly enhance his motivation to learn. They will help to relate his education experience to any number of adult roles as well. Throughout the elementary grades, there would be a continuing examination of how man uses work for self-support, how major occupations employ knowledge, and how productivity is related to a variety of abilities. A major objective of elementary education would be to discover the talents of each child and demonstrate their relationship to the work world.

In an effective comprehensive program, youngsters would be introduced to the concept of choice between achievement through verbal or abstract performance and achievement through manipulation and demonstration of real objects. Both processes would be designed to arrive at the same learning goals. Each unit of work in the language arts, for example, would begin with a self-directed experience matched to individual readiness levels. Eventually all children would reach the same goal, verbalizing or otherwise demonstrating what they have learned--responding in different ways in accordance with individual abilities and talents.

Success in elementary education is critical because it (a) enhances a child's self-esteem, and (b) lays the groundwork for later learning. The way to achieve the kind of education in which no child fails is to identify his style of learning and to deliberately enhance his talent.

The elementary school's role then, is diagnostic and prescriptive. It provides whatever experiences a child may need to "make learning real." It is pointless to read "Billy Builds a Boat" if the child has never built one or even seen one. It is even more pointless to change the name of Billy to Willie, color his skin black, and place the story in an urban environment, as some publishers are now beginning to do. In other words, when children are learning new skills, such as reading, the process does not need to be complicated by their also having to learn new information at the same time. Yet never having built or seen a boat is no barrier to learning. Either let the child first build a boat himself or have him read about things he is already familiar with. The school simply must take the social fact into account and prescribe accordingly. But the prescription cannot be filled without the resources of vocational education in the elementary school.

Few elementary schools teach science, math, languages, and technology in a systematic way based on a child's style of learning. Yet the elementary school is the place to teach these subjects--rather than in junior high where they are now taught. The reason? A young child learns such things better and faster than he will later when he is going through the most severe emotional and physical changes of his life.

The Middle Years

Vocational guidance would be introduced early in the middle-school years. Its aim would be to acquaint the student with the workings of industry and commerce to help match his talents with his career objective. The vocational guidance department would, for example, provide an annual career-objective analysis for each student, based on the diagnosis, discussions, predictions, and evaluations of teachers, examinations, and computers. These analyses--really employment plans that are revised annually--would enable the student to appreciate the relevance of his school performance to his career possibilities.

The middle school is the school of early adolescence. Here is the time to teach music, art, literature, and the social skills. The whole purpose of the middle school should be to calm the anguish of early adolescence. But in addition, it should build on the child's style of learning and talents by helping him see what adults who share his qualities do in society--what jobs they have, what goals they pursue.

If ever there was a time for the student to be encouraged to look inward, to identify his talent, to take stock of his assets, to test himself for future decisions, it is in early adolescence. Art, music, literature, guidance, and the like belong in the middle school. And yet, paradoxically, it is during these years of emotional and physical change that the emphasis is on mathematics, foreign languages, and the physical sciences.

Most middle school youngsters will easily tell us all the subjects they dislike, all the activities they are poor in, but very few know what it is they do like to do or what their talents are.

The upper middle school years (junior high) is also the place for more intensive exploration of careers which is high in an adolescent's concern. ("Who am I going to be? What am I going to do?") The school must help each student try on roles through simulated experiences related to his school studies and his special talents and interests.

The High School

The idea behind comprehensive education is not simply to fit vocational education into the existing system but to make it the principal feature of a new system. The plan depends upon an extensive redesign of the secondary school curriculum.

The usual high school curriculum is a disaster, especially when it consists of tracks that lead either to college or office work or manual trades. There are few things more evil than the structure of secondary education in terms of its negative impact on children. Tracking closes off alternatives at the moment youngsters need to try them out.

High school is also a time for integration of subject matter. Relevant education means, in part, subject matter related to subject matter. With the explosion of knowledge and the growth of subject matter specificity, it seems reasonable to ask that science, math, English, social studies, and the laboratory-become relevant, one discipline to the other.

One model that seems logical at the secondary level is the use of multiple houses which are organized around learning style laboratories. A house master would supervise the interdisciplinary teaching team. In this way the separate disciplines of mathematics, language, physical and

social sciences are drawn together. Each lesson in any one discipline would reinforce the others.

A balanced secondary school would have three major departments: theory for abstract knowledge; laboratories for self-validation of the theoretical portion of the curriculum; and an applications department. At the present time, academic schools rely only on the first two inputs--theory and laboratory; the skills portion of the school curriculum is found in a separate system of vocational education. And yet another valid role for vocational education would be the applications learning laboratory.

The learning laboratory would be used for students to demonstrate their understandings in behavioral ways. The learning laboratories would be both inside and outside the school itself. The labs would be closely tied to real occupational functions.

But there is a much more important issue which must first be faced. If we truly believe the school has a responsibility to identify, develop, and release talent, if we are ready to recognize the marvelous uniqueness and value of every individual, then we must have the wisdom to realize we can do justice to our students only when our educational framework is truly integrated into other social formats: industry, business, civil and military services, the greater community.

Going beyond the formal school is necessary if we are to identify a student's experiential base, to isolate what he can learn from what he needs to learn, and to help him learn on the basis of valid identification procedures what he needs to know before he can proceed to other levels of education and training.

What has become essential is a self-improving educational system in which each student in a large heterogeneous population may receive the individualized instruction which would permit him to proceed along an educational path which, as far as he is concerned, is optimal.

Under such a system, no student would be rejected outright at any stage of his education--although he might be directed, at least temporarily, to more modest objectives when there is reason to believe his career choice offers little probability of success. In such a system, all students would be considered candidates for post-secondary education and

training. And all would have several options available when they graduated from high school.

They would be prepared to work at simple trades and occupations, to go to a two-year community college or technical school, or to move right into a four-year college. Even the choice of a two-year college or technical school would not cut off other options. Upon graduation, the student would be prepared to work at a technical level or to transfer to a four-year college to develop further his skills and to enrich his liberal education.

A New Institution of Higher Learning

The new institution of higher education is necessary for a model comprehensive system. It would be an alternative to the kinds of universities that exist today--colleges that examine knowledge objectively and dispassionately, that research and advance the storehouse of facts, that hold tradition dear, that specialize in some small but significant part of disciplines, that are isolated from applied relevance, that serve the relatively few who have the style and talent for research and publishing. The new institution would be for urban America today what the land grant colleges were for the late nineteenth century's need for professional competence in agricultural economy.

The mission of a new comprehensive institution of higher learning is becoming clearer in a society facing interracial and intergenerational conflict. Vast numbers of our college-age youth are rejecting the nation's historical value system because our educational system in the main has not identified the diverse talents of our students and demonstrated where such talents are used and needed in our pursuits in the work world. Simply stated, our students reject our value system because they do not know what it is they can contribute to the system, what it is they can do well, and where in the system they belong.

One reason for this new kind of higher education is the need for more trained persons. The overwhelming majority of today's institutions of higher education give preference to those possessing "intellectual" (say verbal) aptitude. This new institute would not discriminate against other types of aptitudes--manipulative, social, athletic, esthetic, mechanical, graphic, artistic, perceptive, etc.

The institution would be open to qualified students--"qualified" denoting merely maturity, earnestness of purpose, and a capacity to profit from the institution's program of instruction. It would be dedicated to the principle that no student need be rejected from an educational program.

Higher education must not always be for the few. One cannot speak of the "appalling waste of human resources" and, at the same time, deprive of a college education a young person who may have sensory discrimination or the emotional sensitivity needed for esthetic responses or human interactions--very much valued in vocational education. The new institution of higher education, especially in an urban center, would not choose to give the student two initial years of general education and then send him on for two more years of specialization.

Such a procedure would not fit the institution's educational philosophy--vocations cannot be separated from culture. Cultural studies are intended to serve not only a leisure time purpose but also to have a profound effect on the life activities, beliefs, and behavior of our new graduates.

The education offered at the institution--called general education rather than liberal education (liberal education is that education which develops social concern)--is an attempt to help the student establish some degree of unity and organization for his vocation out of the tremendous variety of knowledge, including the random social and political chaos, confronting him daily. One of its aims, then, would be to develop in the student the capacity to select the truly important issues among the many he will encounter.

Through general education, the faculty would attempt to provide every student with a framework of knowledge into which his special interests and competencies, both intellectual and professional, could be fitted. The faculty would try to make every student aware of the culture of which he is a part, to give him an understanding of how that culture evolved, and to help him participate effectively in it.

The institution would be sensitive to the explosion of knowledge and to the speed with which "facts" learned in school lose their usefulness in a rapidly changing technological society. Facts, like fish, cannot

be stored indefinitely. One must learn to catch fish as they are needed. Thus, the institution would be dedicated to a policy of teaching students how to study independently to acquire the habits that would be useful to them throughout their lives.

General education deals fundamentally with intellectual competence and attempts to develop skill in critical thinking. Since the high school would have already given the students some general education, the faculty would seek to achieve sophistication by building upon that base. During the last two years of high school, students would spend part of each summer at the institution to receive an overview of its programs so they could begin selecting vocational options. The faculties of both the institution and the high school would review the curricula and the progress of students. Course content would be changed periodically to match student performance. A single department of guidance would serve both the institution and its feeder schools.

The institution's courses in the humanities would include literature, languages, philosophy, and the fine arts. Since leisure time looms in the future of all the people in this country, these courses would be considered the liberalizing elements for leisure-time activities. Moreover, when a liberally-educated man is at peace with himself and secure in the knowledge of his own talent, then he is able to respect the belief systems of groups other than his own.

The social studies portion of the curriculum--courses in history, economics, political science, psychology, and sociology--would not be a part of the liberal education but a part of the general education necessary for vocational development. Natural science would include courses in mathematics, physics, and chemistry, which would be integrated with the student's vocational goal.

The main function of the school would be to prepare students for their careers since the overwhelming majority of high school graduates attend institutions of higher education to pursue a vocation.

However, research indicates that students in liberal arts colleges are unable to give an adequate description of the occupational activities to which they aspire. When they do comment on vocations, such as physician, lawyer, or engineer, they are more likely to emphasize the way in which these professionals live, rather than the character of their work.

Their interest in the occupations is related to the styles of life and earning power of the job. Typically, students view all vocations as means by which desired social goals can be attained. A student's vocational aspirations play an important role in his future life. A man's vocation assures his position in the status system of today's mobile society. Youth of high-status families have several roads to success, but those of low-status families—who constitute a sizeable proportion of our metropolitan youth--find occupational placement the best road to increased social status.

By concentrating on the training of technical and professional support personnel, rather than the professions themselves, and basing this preparation on a broad liberal and general education, the new institution should be able to produce broadly-educated rather than narrowly-trained specialists to meet both the needs of social status and technical competency.

The Systems Approach

These goals for education could certainly be attained now by utilizing the systems approach in the new institution of higher education, particularly in the inner city.

Systems engineering analyses offer a new orientation for approaching the many complex problems of education. It requires a thorough analysis of the curriculum and educational structure and precise stipulation of objectives, resources, alternatives and criteria. It requires the integration and application of teaching teams and related technical personnel. Since the aim is greater productivity without sacrificing standards of quality, it involves the use of technical laboratories and shops with optional and alternative assignments, experiments, and design assignments, and computers for rapid data acquisition and analyses. The system would be self-improving, based on constant feedback information at all stages.

The computer would not teach. The system would serve to acquire data and rapidly analyze the student's progress and rate of progress, difficulties, and patterns of difficulties. In conventional classroom situations, patterns of difficulties may not be apparent for weeks or months. By the time the difficulties are uncovered, it may be too late to effect adequate remedial measures. The loss of student time is irrecoverable.

By utilizing computer diagnoses (not computer teaching), difficulties may be reviewed within the course of a single period or, at most, a few periods. Rapid, effective remedial measures could be undertaken at once. On the other hand, as patterns of accomplishment are revealed, accelerated measures for advancement may be instituted.

By effectively relieving the teacher of the burden of grading and analyzing each student's performance and through its capacity for rapid data acquisition and analyses, the computer, in conjunction with some auto-instructional devices for optional assignments makes possible, on a mass basis, the dream of a system which permits each student to learn at his optimum rate.

Although we already refer to something we call an educational system, the word system is truly misused. Based on its engineering definition, the word system requires a measurable input (the student), a power source (the school), a change in input (the curriculum), and a measured output (the graduate). Without a vocational base for precise measurable behavioral goals, the output of an educational system is measured in the vague, fuzzy terms of society, citizenship, or general education.

The Back-Up System

In most good engineering designs, redundant systems are commonplace. A breakdown in a component of a missile or weapon, for example, engages a back-up unit to continue the mission. Therefore, we cannot fail a space vehicle. But in education, we can fail students. Education as a system needs such a back-up design.

In the new educational system, the back-up would be a new type of classroom located in a typical community-run center. The center would be able to grant high school and advanced degrees. Any number of students of various ages, interests, and accomplishments--for whom the regular educational design has not worked--would attend the classroom. Each would be engaged in different studies ranging from remedial programs to advanced work to vocational training. The students would share the same classroom only because of its special facilities and services and because they find it pleasant and encouraging to be among other people who are also learning.

An educational "hostess"--a member of the community who helps students understand the facilities, schedules their assignments, distri-

butes materials, and has telephone and visual communication links with a specially-staffed academic center at the new urban institute--would staff the special classroom.

The community classroom would be fully equipped with the latest communications equipment. At each study carrel would be cartridge-loading tape machines (visual and sound), closed-circuit television, the appropriate study syllabus, programmed and regular textbooks, and materials for study and supplementary reading.

The academic center at the urban institute would provide the direction for students in their self-paced studies at the community classroom. This affiliation would thus insure the value of the degrees and diplomas.

Each teacher would be responsible for three or four courses in his field and for supervising every student taking one of his courses. Because the courses would be self-paced with computer-directed remedial assignments, the teacher could supervise several times the number of students ordinarily supervised by one teacher.

This "back up" program would not only serve youngsters enrolled in the main system but also make a variety of goals attainable to many people on their own time in their own neighborhoods, without requiring them to drop whatever they may be engaged in and go off to distant schools.

As the program has-been described, only the broad outlines of part of a comprehensive educational system have been sketched in.

Filling in the outlines are a large number of techniques including such ideas as older and more talented students teaching younger ones and those with special problems; students participating in decisions about teaching materials and learning experiences; teachers given time for retraining on the job; and, most importantly, the understanding that--while the emphasis here has been on the more pragmatic skills as a way of connecting young people to learning--social concern is a quality each pupil should acquire. This would include sensitivity to others, awareness of conflict and ways of resolving it, an understanding of human variety, the satisfactions of service to others, and the mutual respect of majority and minority belief systems.

The need for a broad vocational base as a way to renew education has been stressed because we have been nourishing our young with intellectual

ideas independent from relevant experience. This generation of young American students is the most intellectually gifted we have ever had. It is now a question of applying such intellect or deluding our young into thinking themselves capable of dealing with problems independently of experience.

Vocational education can become the means of directing the student away from the abstractions of symbols and sterile cleverness toward his own life style. It can deliberately simulate in the classrooms situations from life necessary to develop social concern and proper behavior.

Grants in Vocational Education

A number of programs that illustrate some aspect of the kind of comprehensive education described in this paper are being conducted under grants from the Ford Foundation.

A type of "back up" system, similar to the one described, is being tried at the New York Institute of Technology for students who do not appear likely to succeed in the conventional training programs for technical and sub-professional careers. A computer uses test data to prepare a comprehensive profile of the student's ability, skills, and knowledge. The institute uses these profiles to develop individually prescribed programs for each student. Some go to two- or four-year colleges; some take regular and remedial work; and others combine a job with off-campus studies.

In the Nova Schools in Broward County, Florida, a technical science program is being developed for grades one through twelve. Technical science, as it is conceived of in the Nova Schools, is a new discipline--not separate vocational training--based on technology. It is designed to impart both a theoretical understanding of basic scientific principles and manual skills.

Stout State University received funds to test, in ten cooperating Wisconsin high schools, a new industrial-arts course which presents manual and machine skills in a context of basic industrial concepts rather than as unrelated exercises. The program seeks to offer the basis for a lifetime of learning and advancement rather than narrowly task-oriented knowledge. It also includes general education elements for an understanding of economics, marketing, distribution, personnel, and related facets of industry.

In New Jersey, selected elementary school classes, from kindergarten through the sixth grade, are testing the use of vocational techniques both as an alternative approach to conventional academic subject matter and as a means of introducing children early to the concepts and processes of a technical society.

Mississippi State University has received Foundation funds to aid pilot high schools in Mississippi in using team planning to coordinate academic and vocational offerings. The teams will consist of English, mathematics, science, guidance, and vocational teachers.

The Foundation helped New-York City schools merge two vocational programs for marginal students into one course offering preparation for business, health, and industrial careers. The course uses the team-teaching approach in which academic subjects are correlated with pre-occupational courses.

Cogswell Polytechnical College in San Francisco was assisted in expanding a comprehensive curriculum program to ten Bay area high schools. Western Washington State College is developing a comprehensive curriculum in the graphic arts and the Newton, Massachusetts, high schools have been converted to fully comprehensive schools, offering vocational and technical courses to all students as electives.

The Educational Development Center has received a Foundation grant to develop instructional materials for a curriculum that joins vocational and academic education.

Two projects, the Program for Action by Citizens in Education (PACE) in Cleveland and the Center for Research on Utilization of Scientific Knowledge (CRUSK) at the University of Michigan, attempt to develop human concern and constructive behavior particularly in areas of racial or intergenerational conflict. The PACE project is an attempt to bring attitude development into the classroom through a course concerning such topics as "The Tolerant Individual," "Prejudice, Religion, and Poverty," and "The Negro." The CRUSK project is experimenting in a number of schools in Michigan and elsewhere with new ways of responding to school crises. The experiments include internal problem-solving teams, parallel consultations with established school leadership and the agitators, student-faculty ombudsmen, and a social studies curriculum unit on interracial and intergenerational conflict.

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National Conference on Cooperative Vocational Education
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ABSTRACT

"Interpretive Study of Cooperative Efforts of Private Industry and the Schools to Provide Job-Oriented Education Programs for the Disadvantaged"

In January, 1968, former President Johnson asked Congress for a \$2.1 billion manpower program "...to help Americans who want to work get a job." And since six out of seven working Americans are employed by private industry, President Johnson felt that jobs for the unemployed could and should be made available by the private sector. In line with this notion The National Alliance of Businessmen was formed and under the direction of Henry Ford II this group immediately began to seek pledges from the private sector of jobs and training for those jobs for the so-called hardcore unemployed.

Being an educator my immediate reaction to these developments was, "In providing the job training and the basic education that these hardcore people are going to have to have if they are going to keep a job, what more logical ally could business find than the schools?" Here are existing institutions with the facilities, the personnel, and the know-how to provide basic education and skills training. So if private industry is called upon to provide jobs for people who need training, what more economical way could be found to accomplish the training than to bring in the schools as partners in the project?

I knew that if many people became interested in this joint approach, they would want to know what kinds of cooperative efforts were already being made and how they were working. I began looking for such data and found an occasional article on a specific program in a newspaper or magazine. But it appeared that no one had compiled comparative data on a number of programs. I decided to fill this gap and on July 1 we began a study for the U.S. Office of Education on "Cooperative Efforts of Private Industry and the Schools to Provide Job-Oriented Education for the Disadvantaged."

We used the term 'job-oriented education' because we wanted to look at programs that included more than just job training, and we hesitated

to use the terms 'work-study' or 'cooperative education' because these have precise meanings for vocational educators and we did not want to restrict our sample to programs for in-school youth. We used the phrase 'for the disadvantaged' because our original interest was in the hard-core, certainly a disadvantaged group, but we wanted to look at younger groups also to find out what the school-industry partnership might do for them at an earlier age to prevent their entering the ranks of the hard-core unemployed.

As it turned out, 44 per cent of the programs in our survey sample were designed to aid disadvantaged in-school youth (including those classified as potential dropouts), and the remainder are aimed at other groups composed primarily of adults. Using the classification terminology of the sponsoring schools and companies, these groups include school dropouts, the hard-core unemployed, regular company employees, prospective employees (not necessarily dropouts or hard-core unemployed), and school counselors.

In our programs the range of involvement on the part of industry extends from donation of surplus or out-dated company equipment to the school for use in skills training classes, through the provision of employment and on-the-job training, to maintenance by the company of a full-time staff in the school to provide job-related counseling and placement for students and to serve as curriculum consultants to the school staff. School involvement in the programs extends from provision of a single vocational or basic education instructor for a company-sponsored course to provision of a staff of administrators, teachers, counselors, and consultants for a large work experience-education program.

In order to locate exemplary cooperative programs we sent letters to over 1200 state and local vocational educational authorities and training directors of large companies. From their responses we derived a sample of 64 exemplary programs located in 22 states. For each program we identified a school contact and a company contact, then mailed similar yet distinct questionnaires to each of these individuals. We wanted a view of the workings of the program both from the company and from the school standpoint. Using written and telephone follow-up we finally had 82 per cent of our questionnaires returned, but we have data on 95 per cent of the programs since basic program information could be obtained from a single questionnaire and 95 per cent of the programs are represented by at least one questionnaire.

What are some of the things we learned from our survey?

First, in many communities there is a significant gap in communication between business and the schools, but fortunately this is beginning to be acknowledged and steps are being taken to correct this as the two sectors recognize their mutual need to identify potential skills and adapt them to changing situations. And the results of our survey indicate that the establishment of closer working relationships between private industry and the schools can produce outstanding advantages for both parties.

Contact with industry has fostered greater flexibility in school scheduling and in other policy areas. It has also brought about up-dating of course content, teaching methodology, instructional materials and facilities. A greater variety of courses and vocational programs is being made possible in many schools. These changes combine to make vocational training in the schools more realistic. Thus industry is more satisfied with graduates, and more students are encouraged to stay in school to pick up training that now seems more relevant for life outside of the school classroom. New opportunities to advertise school program offerings are another result of increased contact with industry. Consequently more individuals become aware of the school's potential for retraining and upgrading.

Listing advantages for industry-school cooperation becomes an easy matter once cooperative relationships are established. But too few good working relationships exist and means must be found to correct this situation. I started out with the idea that programs initiated by the NAB could benefit from cooperation with schools and yet very few of these programs now involve the schools. In this study the first steps toward cooperation were taken by the schools in only 25 per cent of the cases. Of course industry certainly should not be discouraged from taking the lead, but in view of the evidence of positive contributions which schools can make to industry, educators have no excuse for lagging behind. School personnel should acquire the confidence to approach private industry with new ideas for cooperative programs. Since better than one-third of the cooperative programs surveyed in this study reported involving the state department of employment security, this agency would seem to be a third legitimate source of the initiative for bringing together the schools and industry.

We tend to put our resources where they will appear to do the most immediate good. Consequently 81 per cent of the cooperative programs included

in this survey are designed for residents of the inner-cities, many prompted by recent urban disorders. Establishment of cooperative programs in smaller cities and towns is badly needed, however. Benefits of training and employment programs which would encourage formerly dissatisfied students to stay on to become productive citizens of their own home town would naturally accrue to the local community, but just as importantly, these individuals would be prevented from swelling the ranks of the dissident in the nation's urban areas.

Companies and schools that have established cooperative job-oriented programs have certainly taken a giant step forward, but room for improvement still exists with regard to certain aspects of these programs. For instance, the evidence suggests that a person learns a task more efficiently when the job is broken down into parts and the individual is allowed to master each part at his own speed before moving on to the next part. More structuring of this type is needed in the job-training components of cooperative programs.

Businessmen are beginning to replace the practice of "finding the man for the job" with that of "fitting the job to the man", thus making us of new approaches to screening, hiring, and training to seek out and utilize human potential. Some school personnel have complained, however, that the companies they work with seem to be more concerned with immediate productivity on the part of a trainee than with pre-work orientation, counseling, and basic education which the worker needs to develop toward his full potential in the future. These essential companions to actual job training for the disadvantaged must not be ignored if cooperative programs hope to remove participants from the ranks of the jobless permanently.

In 56 per cent of the cooperative programs surveyed participants are given special consideration in the job situation not ordinarily provided to the work force. Most often this consideration applies to work performance, with program participants being given more time and more help in learning to perform a job successfully. More lenient standards for lateness and absence may also be applied. Forty-four per cent of the programs expect participants to meet the same standards as regular company employees. Dr. Kenneth Clark, noted Negro psychologist, believes that disadvantaged individuals should be expected to meet those standards of performance which are essential to industrial efficiency, but intensive counseling

services should be available for these new employees in order that 1) they may be helped to understand why the standards are important, and 2) company personnel may come to understand why the disadvantaged have difficulty in meeting the standards. Hopefully, both the companies that say they expect program participants to meet the same standards as regular company employees, and those that say they do not, make available to the participants the needed counseling services.

The average program reports a ratio of seven participants to each company staff member involved in the cooperative program and this certainly constitutes a more favorable student-teacher or student-counselor ratio than exists in most schools. The enormity of the problems confronting disadvantaged individuals as they enter the training situation makes it impossible to deal with them effectively in large groups. Schools must recognize this fact and make a greater effort to reduce class size and counselor load for school personnel involved in programs for the disadvantaged. I would like to see more nonprofessional aides hired from disadvantaged target populations to help teachers communicate more effectively with their disadvantaged students and to reduce the pupil-teacher ratio. It seems to me that young mothers, retired persons and even teenagers could be hired part-time to perform a number of useful functions.

Most (88 per cent) of the programs provide counseling services for participants, but all of them should. Only half of the companies continue to make counseling available to program participants who subsequently become regular employees. Since counseling is always a long-range undertaking and since new problems are bound to be associated when a move is made from trainee to regular employee, it would seem that availability of counseling after training should be more widespread.

One area in which all existing cooperative job-oriented programs could be improved is that of evaluation. Follow-up to ascertain why individuals drop out of a program before completion, or quite a job which they took upon completion of the program, is almost universally ignored. Schools do not keep statistics which would enable them to make a judgment as to whether or not operation of a cooperative program actually had an effect on the school dropout rate. Admittedly such data may be difficult to obtain and may appear to be more costly than their ultimate usefulness warrants, but

without evaluative data the worth of cooperative programs cannot be proven except in subjective terms.

A second phase of our project involves three dissemination seminars designed to accomplish two purposes: 1) to bring together businessmen, educators and other community leaders in three selected urban areas to acquaint them with our findings and to encourage them to consider the possible implications of these findings for local action, and 2) to obtain from the seminar participants suggestions as to how to further disseminate our findings most effectively.

The first of these seminars was held in Knoxville, Tennessee on January 8, the second in Denver, Colorado on January 29, and the third will be at Benjamin Franklin High School in New York City on April 2. We are presently talking with the Office of Education about the possibility of a second project which would set up the machinery for conduct of other dissemination seminars throughout the country.

Remarks
of
Dr. Frank Bobbitt
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concerning
"A Comparative Study of Two Concurrent Work-Education Models in Agriculture"
Before the
National Conference on Cooperative Vocational Education
Minneapolis, Minnesota
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As you may already know, agricultural education, since the Vocational Education Act of 1963, has undergone many changes. Among the changes that have taken place have been the changing of emphasis in the supervised agricultural experience program. No longer do agricultural educators in the high schools confine the experience program to supervised farming. The supervised agricultural experience program now includes occupational experiences in nonfarm agricultural businesses and services that require agricultural knowledges and skills.

As an instructor at the University of Illinois, I found that agricultural experience programs in nonfarm agricultural businesses and services often present a number of problems for many agricultural educators who have had little previous experience with concurrent work-education programs. As relative newcomers in the area of concurrent work-education, we in agriculture have had little past history on which to establish models of concurrent work-education. As a result, agricultural educators have often adopted models from other vocational services such as trade and industrial education and distributive education. Models most often adopted have been those that required some part of the school day to be released in order for students to obtain on-the-job experience.

Agricultural educators, often working in small rural schools and with a background of working with students after school and during the summer, developed another model for obtaining concurrent work-education. They were often in schools where administrators did not completely understand concurrent work-education programs and as a result were often forced to supply on-the-job education experiences after school hours. Suffice it to say in Illinois two models have developed for obtaining concurrent work-education--concurrent work-education with school released time and concurrent work-education without school released time.

The concurrent work-education model with school released time requires that at least three hours of the on-the-job experience be completed during school hours each day and that students taking the course be taught in a separate class. The concurrent work-education model without school released time has no requirements for school released time. In fact, all of the on-the-job experience may be obtained after school, on Saturdays and during the summer. I would hasten to add here that some individuals enrolled in the concurrent work-education model without school released time do obtain concurrent work-education during school hours rather than attend study halls or through other types of individual arrangements. In other words, every student placed on the job has his concurrent work-education program worked out to fit his individual needs. He has the option of attempting to obtain school released time or completing all of his on-the-job experience after school, on Saturdays and during the summer. Needless to say the concurrent work-education model without school released time has a lot to offer teachers of agriculture who are often faced with seasonal employment problems associated with many phases of agriculture.

To get more to the point, the objective of this study was to determine whether or not there were significant differences in educational outcomes between the concurrent work-education model with school released time and the model without school released time. The study was not an attempt to discredit one model in favor of another. Rather it was a study to determine the comparative strengths and weaknesses of the two models.

Many of the recent studies, I found, both in agricultural education and other vocational services, have been directed at the evaluation of traditional concurrent work-education programs with school released time. Studies in agricultural education have concentrated on the evaluation of supervised farming programs and the development of guidelines for conducting occupational experience programs. Most studies in other vocational content areas have been directed toward the traditional concurrent work-education model with school released time. As a result, agricultural occupations instructors in Illinois have selected either the model with school released time or the model without school released time with little

evidence available to them for comparing the two models regarding which of the two models would best adapt to their local situations. It was an objective of the study to assist in bringing this area of occupational education out of the realm of opinion into a position where the results of the two programs could be appraised more objectively.

A major problem studied was whether there were significant differences between the two models regarding the attitudes instructors, pupils, and school administrators had toward the occupational experience program in agriculture. Another problem investigated was whether or not there were significant differences between the two models regarding certain activities of instructors and their pupils associated with the nonfarm agricultural occupations courses.

Pupils enrolled in the nonfarm agricultural occupations courses, their agricultural occupations instructors and their school administrators in the 212 schools in the State of Illinois that offered nonfarm concurrent work-education programs were the population from which the sample was taken for the study. The data were collected by the investigator by interviewing the participants in the study during May 1968.

The results of the study showed that there were no significant differences between the two models regarding the attitudes that students had toward the nonfarm concurrent work-education program in agriculture. There was also no difference between the two models in the attitudes of instructors toward the concurrent work-education programs in agriculture. Finally, there were no significant differences between the two models in the attitudes of school administrators toward nonfarm concurrent work-education programs in agriculture.

The results of the study showed that there were no significant differences between the two concurrent work-education models on 29 of the 44 activities students were asked to react to on the interview schedule. Students enrolled in the concurrent work-education model without school released time scored significantly higher on nine activities than students enrolled in the model with school released time on the following activities:

1. The number of different courses in which pupils were enrolled.
2. The number of clubs pupils belong to in high school.
3. The number of pupils who held an office in the FFA.

4. The number of home visits made by instructors.
5. The number of pupils who had written training plans.
6. The number of pupils who felt their job contributed significantly to their occupational objective.
7. The number of pupils who planned to continue in agricultural occupations after graduation.
8. The percentage of the pupils' training plan that had been completed.
9. The percentage of the pupils' on-the-job training activities which related to their career goal.

Students enrolled in the model with school released time scored significantly higher on the following six activities than students enrolled in concurrent work-education without school released time.

1. The number of times instructors made on-the-job visits.
2. The number of counseling sessions pupils had with their instructor.
3. The number of instructors who helped pupils plan for post-high school training.
4. The number of months pupils were employed.
5. The amount of money pupils made per year.
6. The number of hours pupils worked per year.

The study showed that there were no significant differences between the two models on 28 of the 38 activities that instructors reacted to on the interview schedule.

Instructors supervising concurrent work-education with school released time scored higher than instructors supervising concurrent work-education without school released time on the following nine activities:

1. The number of instructors who had nonfarm agriculture students participate in FFA contests.
2. The number of supervisory visits instructors made to cooperating businesses to observe students at work.
3. The number of jobs that the instructor first identified for pupils.
4. The number of instructors who invited managers and supervisors into the classroom for demonstrations, observations, and discussions on special class topics.
5. The number of parents who signed a written training agreement.
6. The number of school administrators who participated in the development of the nonfarm agriculture courses.
7. The number of teachers who thought they were allotted sufficient time to supervise students at the training station.
8. The number of instructors who used role playing in the classroom.
9. The number of parents with whom the instructor conferred concerning their son or daughter's progress on the job.

Instructors supervising concurrent work-education without school released time scored higher than instructors supervising concurrent work-education with school released time on one activity--the amount of agriculture that was taught in the classroom.

From this data it was concluded that there were some activities in which there were significant differences in the two concurrent work-education models. However, there were no significant differences between the two models on the great majority of activities. Also there were no significant differences between the two models regarding the attitudes that were generated in students, instructors and school administrators toward the concurrent work-education program in agriculture. It is suggested where deficiencies between the two models were found, an effort should be made to increase the effectiveness of the activity in the model where deficiencies were detected.

The results of the comparison of the two concurrent work-education models showed that there were more similarities than differences between the two models. I suggest that both models be retained as options for agricultural occupations instructors to select from in order to meet the needs of their local situations.

I think the two models I have been discussing are very important to have available to instructors in order to shape programs to meet the needs of students rather than shaping students to fit programs.